

ANNALS
OF
PHRENOLOGY

Committee of Publication.

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PROSPECTUS

FOR PUBLISHING

A QUARTERLY PERIODICAL

TO BE ENTITLED

ANNALS OF PHRENOLOGY.

TO CONSIST OF

ARTICLES FROM THE EDINBURGH, PARIS, AND LONDON PHRENOLOGICAL JOURNALS, AND OF SUCH ORIGINAL PAPERS AS MAY BE SELECTED AND APPROVED BY THE
‘BOSTON PHRENOLOGICAL SOCIETY.’

Since the visit of DR. SPURZHEIM to this country, the Science of Phrenology has assumed an interesting aspect, and intelligent men of every class, have become engaged in the investigation of it. This Journal is proposed with a view to facilitate free and general inquiry into the truths and objects of Phrenology, to ascertain its bearings, upon the Physical, Moral, and Intellectual condition of man.

‘I speak literally, and in sincerity, when I say, that were I at this moment offered the wealth of India on condition of Phrenology being blotted from my mind forever, I would scorn the gift; nay, were everything I possess in the world placed in one hand, and Phrenology in the other, and orders issued for me to choose one, PHRENOLOGY, without a moment’s hesitation, would be preferred.’

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ANNALS OF PHRENOLOGY.

ARTICLE I.

Thoughts on Materialism, Insanity, Idiocy, Comparative Anatomy, Memory, Consciousness, &c. suggested by an article published in the 'Christian Examiner,' entitled 'The Pretensions of Phrenology examined.'

It is an aphorism of Coleridge, that, 'In Wonder all philosophy began: in wonder it ends; and admiration fills up the interspace. But the first wonder is the offspring of Ignorance: the last is the parent of Adoration. The first is the birththroe of our knowledge; the last is its euthanasy and apotheosis.'

Another author* has been recently quoted to show 'that all our philosophy is the result of excessive curiosity and imperfect vision.'

However true these maxims may be in some respects, we can hardly regard them as definitions comprehending all the sources of our philosophy.

That wonder and curiosity may be incident, or even antecedent, to philosophical inquiry, we are ready to admit; but we deny that philosophy is the necessary consequence of either.

All men alike, though in different degrees, and with reference to different objects, are subject both to wonder and curiosity; but wonder does not necessarily lead to reason, and curiosity has no object beyond the mere possession of knowledge.

* Fontenelle.

Every philosophy has some peculiarity of its own, which will be found to correspond to certain original traits of character in its author. Thus we have the mathematical, the analytical, the analogical, the argumentative, the mystical, the spiritual, the moral, the sensual, the practical, the mechanical, and so forth.

Every age has had its systems of philosophy, and the history of every age will tell us how many of them have been efficient or practical. To be an efficient or practical philosopher, a well balanced mind is requisite. In tracing effects to their causes, and establishing a system on experience and observation, the whole mind is necessary — every faculty has its part to perform. With a view to see this variety of philosophy on a particular subject, we shall briefly refer to the various opinions entertained by some of the ancient metaphysicians in relation to the soul.

As this subject is of an abstract nature, having no *material data* for the basis of a theory, and not being referrible to the test of observation, the different opinions held by different philosophers respecting it, could not have originated in a different measure of knowledge, all being equally ignorant, but must have had their source in the peculiar traits of their respective authors' minds.

Many of the ancients fancied all matter endowed with a spirit—*spiritus intus alit*. Some believed in three souls; Paracelsus believed in four. Philo and Origen maintained that the stars were so many souls, incorruptible and immortal. Anaxagoras and others were accused of Atheism and impiety, because they deemed that the heavenly bodies were animated and intelligent. Anaxagoras himself considered the soul to be the principle of motion. Epicurus, believed the soul to be the result of a combination of the most volatile and ethereal *auras* or gases, *diffused over the whole body*, though traced in some organs more than in others. Democritus held that the soul was composed of *fire and heat*: Thales, that it was something that was most likely to *move*: Hippocrates, a composition of fire and water, although distinct from body and motion, when the body was at rest; others that it was *harmony*, and others still, that it was *number*.

Peter Lombard, one of the Fathers, held that the soul was created out of nothing; and others, that reason and the soul were

one. The Cabalists supposed 'that spirits *were not made from nothing*, but from the Holy Ghost; and that spirits produced spirits, as ideas produced ideas.'

Aristotle contended that it was neither motion nor number, nor harmony, nor a composition of various elements, but something belonging to the body, by which we live, perceive, and understand.

Plato considered the soul to be something entirely distinct from the body; that it was placed in the highest part of the body, and led to heavenly contemplation; that it was created long before the body, and will live after it; that it was invisible, indestructible and consequently immortal. Such, too, was the opinion of Socrates, and others; all which incontestibly proves that diversity of opinion does not arise so much from the difference of knowledge upon the subject itself, as from the original differences of mind.

But to shorten our preliminary, suffice it to say, that we belong neither to the school of Wonder nor to that of Curiosity. We shall reserve to ourselves, however, the privileges appertaining to both, to wonder when we please, and to be curious when we please. We profess to have a philosophy, which, although it may have originated and may end in wonder, the parent of adoration, yet its perfection and application have been advanced and extended by motives far above those of mere curiosity.

We confess that we have much to wonder at, and that we are exceedingly curious to know the result of certain symptoms of the times, which we are daily called to witness. But we hardly dare to expect a new philosophy from this circumstance. Men in high places, for example, condescend to sit in judgment upon questions which they have not deigned to investigate, and to speak as with authority, the fate of systems which they have failed to comprehend.

It is now two years since the death of the illustrious Spurzheim. His presence commanded the respect and the attention of the learned, as well as of the unlettered portion of our citizens. While he lived to breathe his philosophy, no one of acknowledged standing came forth to oppose him; but when the philosopher was dead, the courage of the skeptic returned, and he could venture to battle his system with more safety, if not with more credit to himself. Not that

Thoughts on Materialism, Insanity, &c.

we complain of opposition; indeed we confess the want of it; but we would simply refer to the fact, that most of our distinguished men, who acknowledged the superiority and claims of Spurzheim, while living, neglect his doctrines, and treat them with disrespect now that he is dead. Is this becoming men of science? Is this the liberality which characterizes true Philosophy? Such questions need not be answered. How these men can answer for themselves and what apology they can offer for neglecting so important a science as the science of man, we do not even conjecture; but, if Phrenology be true, it is their imperative duty to advance it; if false, to expose its fallacies. We know that it is difficult for men, who have long taught that Phrenology was rather the offspring of empiricism than of creditable investigation, to give it a candid hearing, or patient examination. The pride of opinion is often as great as the pride of fashion, and not unfrequently do we see them both united. We most cordially invite all opponents to the task of investigation. The opposition to the science in this country, has, as yet, been of no avail; and it is a circumstance much to be regretted, that those who have written and spoken against it, have drawn their materials from foreign journals, and from books of ancient dates, which fail to represent their authors. They have urged nothing new, they have discovered no new defect; rather they have weakened many of the objections which were published in Europe twenty years ago.

First came into the field the North American, with its mighty *we*; and it even condescended to show its colors. With what success, our readers best can judge. Passing over the many attempts at wit and ridicule, which may ever be seen in the papers of the day, upon all subjects and according to all tastes, we are next called to meet the Examiner. The columns of this work are open for a free discussion of the whole subject; and this is highly creditable to the liberality of its conductors. We trust that such liberality will not be abused, but be made available on all proper occasions.

The attack in the Examiner, which will now receive our particular attention, is but a repetition of objections as old as the science itself. They have been ably answered and refuted,

time and again; but probably those who repeat them are ignorant of the fact — at least our charity leads us to that conclusion. But as every new article presents some little difference, either in language or position, it becomes our duty to answer the objections, with that spirit of candor which the importance of the subject demands; and, as it is not our purpose to write a *mere* answer to the Examiner, we shall occasionally enlarge upon some subjects, important to be elucidated.

It is even a subject of congratulation that one has appeared to oppose the science, who has long made it a subject of study. That this is the case we may infer from his own language. ‘While the discoveries, or supposed discoveries, of Gall bore the humble name of Craniology,’ he says, ‘we felt no disposition to interfere with them. But when this science assumed the title of Phrenology, &c. we began to fear its carnal influence.’ Now the name of the science was changed some twenty years ago; and if that period of time be necessary for our author’s *beginning to fear*, we readily acknowledge his carefulness, and appreciate his unparalleled forbearance. We are bound to admit, until the contrary be proved, that he examined Craniology and was ready to testify to its innocence; but, in a most unfortunate moment, the name was changed to Phrenology, and, after a deliberation of some twenty years, he renders to the public a solemn verdict of its guilt! The amount of which, is, if the culprit’s name be *John*, I acquit him; but if *Peter*, he deserves a public execution.

It furthermore has happened, that, since the science was newly named, sundry improvements of vital consequence have been made, but these are not recognized by the learned critic. He has said it: Craniology is innocent — Phrenology is culpable, although the pretensions of the science remain the same. Therefore, the dangers, possible or probable, of a single word, are to be calculated by those who are conscious of the peril, and provided for accordingly.

In answering the various objections of the Reviewer, we resolve them into the following distinct propositions:

First: That ‘Phrenology is Materialism.’

Second: ‘That the energy and perfection of the mental faculties are not always proportioned to the development of the brain;

that idiocy, in many cases, if not all, consists in a disease of the nerves;’ and that insanity affords no proof in favor of Phrenology.

Third: That Comparative Anatomy furnishes evidence against Phrenology.

Fourth: That Phrenologists admit no such faculty as Memory; and,

Fifth: That Consciousness is insulted by Phrenologists, because they do not admit it to be a faculty of the mind.

We shall let the author state his own positions, and as we commence with the first proposition — That ‘Phrenology is Materialism,’ — we shall quote him with reference to that particular subject:

‘Our purpose in these remarks, — the bearing of which on the subject before us may seem somewhat remote, — was to determine, as nearly as possible the position which Phrenology must occupy in relation to previous systems of philosophy, if allowed to take its place among them. It is evidently a branch of the Sensual school, and must be considered as belonging to the lowest form of that school. It is, in fact, a system of pure Materialism. We are fully aware that some of its professors have labored to avoid this imputation; but, as it seems to us, unsuccessfully and unwisely. Unsuccessfully, because the fundamental principle, and indeed the whole structure, of their doctrine is an everlasting contradiction to any disclaimer which they may see fit to make on this subject; — unwisely, because the disavowal of Materialism gives an appearance of inconsistency to their system, and by this means deprives it of the small degree of consideration it might otherwise claim. If we are right in our suspicions, the motive of this disavowal proceeds partly from a natural, though very unphilosophical, dread of a consequence so startling, but chiefly from a fear of the discredit which it might bring upon their doctrine. This is mistaken policy. The worst feature which any philosophy can exhibit is inconsistency; and no system is entitled to respect, which does not candidly admit, and resolutely meet the consequences which naturally flow from it. Not that Phrenology would be any more true, if it assumed the form of avowed Materialism. God forbid! But it would certainly deserve in that form a more patient hearing. The Phrenologist may profess, if he pleases, that he is not a Materialist; such a profession is nothing to the purpose, except to prove, that his instinctive good sense is truer than his philosophy; — but when he asserts that Phrenology is not Materialism, he shows himself utterly deficient in logic, and renders his whole system ridiculous. Phrenology *is* Materialism.’ — (p. 252.)

Were it not for the following passages, and others of a similar import, we might proceed to the subject of Materialism at once. But as our author seems to be a disciple of Chrysippus, we regard it of consequence, in more respects than one, to quote him farther in relation to the connexion which exists between the brain and the mind. He says,

‘As metaphysicians, then, arguing from consciousness, from reason, and reflection, we affirm that the brain is not the organ of the mind; that on the contrary, many of the mental faculties are wholly independent of this organ.’

Again,

‘If it be maintained that the mind manifests itself by means of the brain, we reply, that a great portion of the mind’s action is not manifested at all, which makes the brain, so far useless; and that, when the mind does manifest itself, it is, as every one knows, by means of the hands and feet, the lips, eyes, &c., showing at least as great a dependence on these organs as on the brain.’

And again,

‘The connexion of the soul with the body, is not *local* but *virtual*, and this connexion, such as it is, refers not to the brain only, but, in a greater or less degree, to every part of the system.’

Chrysippus maintained ‘that the soul was an innate spirit, pervading the whole body, but distributed to particular parts for special purposes :* to the trachea, for the voice, to the eyes for sight, to the ears for hearing, to the nostrils for smelling, and to the whole body for the sense of touch; that all these portions of spirit unite in the heart; and that the passions reside in the heart; and hence he infers syllogistically, that the governing principle is in the heart. *Where the passions of the soul are, there the governing principle is; but the passions of the soul are in the heart, therefore the governing principle is in the heart.*’

The assertion that ‘there are many faculties wholly independent of the brain,’ is perfectly gratuitous. In fact the author admits that neither reason nor reflection can prove it; but he thinks the converse of the proposition is equally difficult. Not so. It is a

* Gregory Nyssenus, of the fourth century, and Damascenus of the eighth, embraced similar views.

fact which must be as evident to him as it is to ourselves, that mind is known only in connexion with the brain ; and that the mind is more or less manifested, according to the size and condition of the brain. The two conditions, of its partial presence or absence, even if cursorily observed, are sufficient to decide the question.

The reviewer can hardly be serious, when he speaks of 'the feet, lips and eyes,' as primary organs by which the mind manifests itself. We are speaking of the brain as the proper seat of the mind, from which proceed all our thoughts and decisions. If we move a foot, or hand, or lip, it is an act consequent to volition, which act of volition depends, for its character, upon the physiological perfection of the brain. The brain stands in the same relation to the mind, as an instrument, as the hand to the brain. If the brain be imperfect, the development of mind is imperfect also ; if the brain be perfect and the executive power wanting, it fails in the perfect execution of its plans. In both instances, the partial failure is in consequence of the imperfection of the instrument. We are happy in being sustained by Bichat, who says, 'the brain is to the mind, that which the senses are to the brain.'

If we hold a rod in our hand for the purpose of reaching a distant point, then, the argument of the Reviewer would lead us to infer that the mind depends as much upon the rod, as the brain, for the means of manifesting itself. We can dispense with either, the hand, the eye, the foot, the lips, or the rod—without impairing the manifestations of mind. But can we spare the brain? The loss of an eye may abridge the means of expression, but not of thought. Besides, this general enumeration of organs of totally different functions with a view to explain a class of phenomena unlike all others, is in direct violation of the most settled rules of philosophical investigation. The ear cannot see, nor the eye hear ; neither can any of the inferior organs of the body perform, in any degree, the important functions of the brain. But we have a stranger position to consider, although of the same species.

'The connexion of the soul with the body is not *local*, but *virtual*, and this connexion, such as it is, refers not to the brain only, but, in a greater or less degree, to every part of the system.'

The Reviewer confounds the mind with mere sensation; for if the soul has no particular location in the physical system, it necessarily follows that it is diffused throughout, which is equal to giving to every part the power of manifesting thought.

We might with reason ask the question of the fool in King Lear: 'If a man's brains were in his heels, were 't not in danger of kibes?'

We shall grant no physiological explanation with regard to what is merely *virtual*, because it can have no bearing upon the subject. If the idiot had but little room for the soul in his head, there could be no want of room in his body! We often see men in the full possession of intellect, who have lost, by amputation, their legs and arms, and in such cases, of course, according to our author, the soul would recede from the bloody knife inwards; otherwise, a proportional degree of it would escape. Besides, the soul not being subject to any special organization, could assume to itself and sustain the character of greatness, or its opposite, with the same facility. For an essence, or spirit, not subject to the laws of organized matter, cannot be bounded by matter, or dependent upon it.

We now come to the consideration of the charge, that 'PHRENOLOGY IS MATERIALISM.' This word of dreadful import is a host within itself. Materialism! Write it: the reader scans it with fearful trepidation! Speak it: the hearer stands aghast! — It has been in the mouths of bigots and zealots of every age, for more than two thousand years. Sects of different creeds have alternately charged upon each other doctrines leading to this dreadful abyss — Materialism. It was of no consequence whether the charge had any meaning, or was applicable to the doctrine which was to be opposed. It was uttered, as by the power of magic, for its inherent ugliness; not for the justice of a cause, but for the advancement of doctrines destitute of internal merit, by enlisting the prejudices of the ignorant, and exciting the fears of the weak. It had no apology to plead for itself, except the maxim, that '*the end always justifies the means.*'

Such charges have been employed by the cunning or the timid.

of every age. It was by such vague accusations, that 'the opponents of Aristotle were led to burn his books; afterwards the books of Ramus, who had written against Aristotle, were burnt, and the opponents of the philosopher of Stagira declared heretics; and it was forbidden by law to dispute his doctrines under the pain of being sent to the galleys. Des Cartes was persecuted because he taught the innateness of ideas, and the University of Paris burnt his books. He had written the most sublime thoughts on the existence of God. Voët, his enemy, accused him of atheism. Afterwards this same University declares itself in favor of innate ideas; and when Locke and Condillac attacked innate ideas, the cry of Materialism and Fatalism resounded on all sides.'*

Those who maintained the influence of climate upon the intellectual character, were suspected of Materialism.†

The physical truths announced by Linnæus, Buffon, Bonnet, and Le Roy, were represented as impieties likely to prostrate religion. Even the doctrines of Newton were deemed irreligious by the Hutchinsonian sect. In fact, almost every system of moral philosophy that has sought the aid of physiology, or the physical sciences, has been charged with Materialism.‡

To judge of motives is to travel beyond the limits of our province, but it is a serious difficulty with us to trace the inducement which led to the charge of Materialism against Phrenology. The Reviewer says, 'Phrenology is evidently a branch of the sensual school, and must be considered as belonging to the lowest form of that school. It *is* in fact a system of pure MATERIALISM.'

'It has been remarked by the celebrated Haller,' says Coleridge, 'that we are deaf while we are yawning. The same act of drowsiness that stretches open our mouths closes our ears. It is much the same in acts of the understanding. A lazy half-attention amounts to a mental yawn.'

Were it not a truth universally acknowledged that 'to err is human,' and that all men are subject more or less to 'mental yawning,' we might surrender our pen, and consider the whole question as settled, that 'Phrenology *is* Materialism.' It is the *dictum* of

* Eliotson's Blumenbach.

† *Ib.*

‡ *Ib.*

the Reviewer ; and who shall contend ! But we have a duty to perform, and in the discharge of that duty we shall endeavor to show that had our author given even ' a lazy half-attention ' to the subject, we should not now have the task of answering the article before us.

Materialism, in its true acceptation, signifies the doctrine of NO FIRST CAUSE, OR, that all has been produced *ex fortuita atomorum collisione*.*

Pure Materialism refers all things to matter ; matter thinks, matter speaks, matter lives, and matter dies. It makes the soul and its vital energies to result entirely from organization ; and when that is resolved to its original elements, then life with all that belonged to it is absolutely extinct. *This is Materialism.* This is the doctrine which recognizes no soul above matter, no being above man. It is the doctrine of blind chance, and its promise is eternal death. Anything short of this, is *not* Materialism. Allow but the existence of an immaterial spirit, and an immortal soul, however you may clothe it, or represent it in connexion with matter, you are no Materialist. It is the principle of thought that never dies, and that does not depend for its existence upon the modifications of matter, although it may be known only in connexion with it. The pure Materialist excludes himself from the spiritual world ; he admits none ; and the line of distinction between him and those who acknowledge the immortality and immateriality of the soul, is a gulf too wide, too deep, to be mistaken. The distinction is, ' that perfect *antithesis* which we understand by matter and spirit.' Therefore, if Phrenologists are Materialists, the Reviewer is a Materialist ; all Christians are Materialists. All who admit any connexion whatever between mind and matter are Materialists. Those who contend that mind depends as much upon the ' hands, lips, feet, &c., ' are more Materialists than those who refer it to the brain alone, inasmuch as more matter is required. Those who admit the brain to be the organ of the mind are Materialists. It is of little consequence, as far as this *mere doctrine* is concerned,

* Dr. Elliotson.

whether it is conceded that the mind manifests itself by the brain as one organ, or as a congeries of organs. To suppose that any principle can belong to a material world, and act in it, without a material agent, is to contend for powers which are above nature, and which cannot be subject to human reason. The action of disembodied immaterial agencies cannot be comprehended in a world where no power is seen but in connexion with matter. And to maintain a position which admits of no demonstration, which can plead no precedent or utility, can neither elevate our character nor advance our perfection. To deny the union of mind and matter, is to reject the evidence of our reason, and to decry that union is to dishonor the Almighty.

The insinuation of the Reviewer that the disavowal by Phrenologists of Materialism, proceeds from a fear of the discredit which it might bring upon their doctrines, is unworthy of an honorable opponent. We trust that Phrenologists are as conscious of their duty to God and to man, and as fearless promulgators of truth and reason, as can be the Reviewer, or those of his party. If, however, too great a regard to *expediency* be the sin of either, there is much reason to suspect that the enemies of the science would not have the privilege of casting the first stone. And the assertion that 'the Phrenologist is utterly deficient in logic, and renders his whole system ridiculous, when he denies Materialism,' is of that self-complacent character which is of far more consequence to the happiness of its author, than it can be dangerous to his opponents. To violate *some kinds* of logic is to sustain truth; but to sustain truth according to the plainest evidences recognized by reason, is a privilege which this writer has as yet failed to exercise. He says,

'Every theory of the mental faculties professing to be the whole account of man, and not taking its stand within the mind as an immaterial substance, but in a collection of matter, does, by its very definition, come under that denomination,' (Materialism.)

We honestly confess our '*deficiency*.' We cannot comprehend the logic of this sentence. Indeed, it is so entirely *immaterial* in

its nature, that we consider it quite immaterial whether we understand it or not. But we would ask, in the name of wonder and curiosity, what is meant by 'a theory taking its stand within the mind as an immaterial substance?' Is it that the immaterial mind can establish a theory in relation to the immaterial mind, independent of matter? And what is meant by 'a theory of the mental faculties taking its stand in a collection of matter?' Is it, that a theory may exist in matter independent of mind? The one is as incomprehensible as the other; and both may be passed over into that receptacle of chaotic sayings to which the writers of every age have, more or less, contributed. To what the immortal mind is destined in other worlds, we know not; but we know it here only in connexion with matter. Pascal says, 'I can readily conceive of a man without hands, or feet, and I could conceive of him without a head, if experience had not taught me that by this he thinks.' The philosophy of man is the philosophy of mind as manifested by matter, and all systems claiming a higher sphere have presumption for their basis, and mystery for their logic.

Phrenology admits matter; so does the Reviewer. The Reviewer admits the immortality of the soul; nor is it denied by Phrenology. But when we are asked to reason like immaterial spirits, or like gods not subject to matter, we are invited to deny the reality of things, and to attribute the imperfections of the flesh to that principle which is eternal in its nature, and has its origin in God. Again :

'In vain would the Phrenologist distinguish between the manifestations of the mind and the mind itself. The mind has absolutely and professedly no place in his system; it does not come into consideration. What does come into consideration? A mass of cineritious and medullary matter, called the brain, to which all intellectual and moral phenomena are referred. Consequently the manifestations of which he speaks, are manifestations of this cineritious and medullary substance, and he has no authority whatever for calling them manifestations of the mind. He has found what he deems a sufficient cause for the phenomena in question, and it is altogether unphilosophical to speak of any

other. When, therefore, the phrenologist talks of mind as distinct from the brain; he talks *extra scholam*, i.e. from a point not given in the philosophy itself, but assumed beyond it. He speaks not as an expounder of the system, but as a critic sitting in judgment upon it. Now it must be evident, even to one less skilled in dialectics, if that were possible, than the author of the work before us, that every system of philosophy is to be judged from its own principles and the deductions naturally flowing therefrom, and not from the exoteric assertions of its disciples. The Phrenologist says, "the organs do not constitute the mind." That we well know; but what then are these organs? They are the causes of mental phenomena. What is the conclusion? Evidently that there is no mind.'

'Whoever makes a syllogism,' says Van Helmont, 'he already before distinctly knew that which he endeavors to have granted him by the conclusion. To wit, he knew the terms, the means, and the mood.' The Reviewer furnishes materials both for his opponents and himself, and to be secure in his positions, he prescribes the laws by which they are to be combined. We are at a loss which to admire most, his readiness at supplying assailable propositions which are not advanced, or his peculiar aptness at illogical conclusions from premises acknowledged. The position, that 'we cannot distinguish between the manifestations of the mind, and the mind itself,' is perfectly unphilosophical. It asserts that the mind and its manifestations are synonymous, and we are at liberty to reverse the proposition as follows :

The manifestations of the mind *are the mind*. Or, in other language, the operations of the mind are the mind itself. Now, the manifestations of the mind depend upon the mind, but does the existence of the mind depend upon its manifestations? It is merely a question of relation, not between two separate things, or powers, but between an original power of producing, and the simple act or acts of production in the same power. The power, whatever it may be, is original, and its manifestations are merely the signs of its existence. To say that they are one and the same, is to confound the cause with the appearance of the effect.

We will illustrate our meaning. The power of steam is manifested

in a variety of ways by its application to machinery ; but is the conclusion warranted that the variously modified manifestations of the power of steam, by machinery, cannot be distinguished from the steam itself ? The great power of steam is admitted independent of all apparatus ; that is, it does not depend upon any application for its own inherent nature.

Phrenologists admit the mind as dependent upon the Deity, as an immortal principle ; and that it manifests itself by means of the brain, which is subject to established laws. And therefore, the assertions that ‘ the mind has absolutely and professedly no place in the system of phrenology ; that physiologists and anatomists are the only true interpreters of man’s moral and intellectual nature ; ’ that phrenology was ‘ born of the dissecting knife and a lump of medulla ; ’ that it is to supplant the ‘ sublime philosophy of the bible, and to sit in judgment on the infinite and eternal ; ’ ‘ that there is no indwelling spirit in man ; ’ ‘ that those godlike powers which raise us above time and sense, and commune with the all-wise and true, are not, the immaterial functions of an immaterial being ; ’ ‘ that those powers, those thoughts, are the products of little lumps of flesh,’ and the conclusions that ‘ the manifestations (spoken of by Phrenologists) are the manifestations of the cineritious and medullary substance,’ and that ‘ the organs are the *cause* of mental phenomena,’ are perfectly gratuitous on the part of the Reviewer, and without authority.

Dr. Gall says, ‘ *Quand je dis que l’exercice de nos facultés morales et intellectuelles dépend de conditions matérielles, je n’entends pas que nos facultés soient un PRODUIT de l’organisation ; ce serait confondre les conditions avec les causes efficientes. Je m’entends à ce que l’on peut soumettre à l’observation. Ainsi je ne considère nos facultés morales et intellectuelles qu’ autant qu’elles deviennent pour nous des phénomènes par le moyen des organes cérébraux,*’ etc.

‘ *We separate the faculties of the soul or of the mind,*’ says Spurzheim, ‘ *and consider the cerebral parts as the instruments by means of which they manifest themselves.*’ And Mr. Combe

says, 'The whole phenomena of life are the result of mind and body joined, each modifying each.' But the Reviewer, anticipating probably the point to which his reasoning would lead him, advances a proposition no less strange than absurd.

'If it be maintained,' says he, 'that the mind operates by means of the brain, we throw the burden of proof on the physiologist, and demand *positive* demonstration of the fact. For we are by no means satisfied with the evidence hitherto adduced in support of it. And however we may be disposed to admit that those faculties and propensities which connect us immediately with the outward world, such as observation and calculation, the sensual appetites, and the earthly affections, are determined by cerebral developments, it seems to us utterly improbable — nay, impossible — that the powers and propensities of our spiritual nature, the will (meaning thereby moral self-determination,) faith, love of God (not veneration,) consciousness, reason, &c., are thus determined; and nothing less than absolute demonstration will convince us of the fact. The only way to demonstrate this point would be, to show the brain in the act of performing these functions. As this cannot be done, demonstration is out of the question, and all that can be offered is presumptive evidence.'

This position reminds us of a man, who, when laboring under mental derangement, contended with great display of argument and zeal that he 'alone was sane, and that all other men were fit subjects for the mad-house.' We might, with the same propriety, even more, deny the existence of the senses, and demand that before we admit them, hearing, seeing, smelling, and tastin: should be demonstrated! Will the Reviewer show by demonstration the nose with the olfactory nerve, in the very act of smelling? the optic nerve in the very act of seeing? If he can do this, we will show him a brain in the act of thinking.

Our author is a very *Didymus* in unbelief; and in the language of Thomas might well say 'Except I shall see in his hands the print of the nails, and put my finger into the print of the nails, and thrust my hand into his side, I WILL NOT BELIEVE.'

Notwithstanding his expression of horror at 'bloody hands, &c.,' he demands the privilege of fingering the brain, of looking at it,

with a view to detect it in the very act of thought — to see the mechanism of particles of matter in full operation, like clock-work, manufacturing ideas—to inspect the intelligent atoms of matter, observing their own complicated relations and duties, all engaged as mental performers ! This he calls demonstration ! And, as phrenologists have failed to produce this *physiological* evidence, he denominates their science presumptive, and asserts that it is based ‘on a mere hypothesis.’ This display of the imagination is as innocent as it is flighty, as unreal as it is absurd. It has no reference to anything existing, with which we are acquainted ; and if the demand be seriously made with the idea that it will be fatal to Phrenology if Phrenologists cannot answer it, it is a requisition that would have made Heraclitus laugh, and Democritus weep.

The Reviewer, however, does not quite lose himself in his own mystifications, as he almost admits ‘that those faculties and propensities which connect us immediately with the outward world, such as observation and calculation, the sensual appetites and the earthly affections, are determined by cerebral development !’

The author, in depths profound, seems to have indited each sentence of his article by itself, without regard to its agreement with his previous or subsequent assertions. We are gravely called upon to exclude the ‘faculties of *observation, calculation, &c.*’ as belonging to the immaterial mind, and consequently to classify them among the physical powers ! Here is a subject worthy the metaphysical acumen of the Reviewer. Let him demonstrate how particles of matter *calculate* — how they *observe* — how they *feel* ! But we are entirely lost when we attempt to comprehend what are the ‘propensities of our spiritual nature,’ particularly, when they are defined to be ‘*the will, faith, love to God, consciousness, reason, &c.*,’ embracing nearly all the mental powers of man, and ‘*consciousness,*’ which is common to animals !

Notwithstanding the learned admit the brain to be the organ of the mind, they charge upon Phrenologists the doctrine of Materialism. They reason for others, but not for themselves; and by permission we will reverse the privilege, and bring the testimony of distinguished writers of various ages in relation to this subject.

And, then, if to admit that the brain is the organ of the mind, whether single or otherwise, constitutes a Materialist, we shall be enabled to show that the philosophers of every age will fall under the same condemnation.

Hippocrates considered 'the brain an organ of great consequence and power in the human frame,' but his notions of its structure were very indistinct. He calls it, however, 'the seat of sense and intelligence.' 'It is by this,' he says, 'chiefly, that we think and understand, and see, and hear, and know what is base and honorable, evil and good, pleasant and unpleasant,' &c. — and again, 'the brain is the messenger or instrument of thought.' Plato considered 'the brain as the seat of the governing principles.' Socrates was 'anxious to know,' he says, 'whether we have sense and intelligence by the blood, or by air, or fire; or whether the sense of hearing, and seeing, and smelling, depend upon the brain.' Aristotle considered 'the brain as a composition of earth and water.' 'That the heart was the seat of the faculties.' Both Aristotle and Plato were ignorant of the origin, nature and distribution of the nerves.

From the time of Hippocrates, Plato, and Aristotle, to that of Galen, who lived many centuries after them, we do not find in the writings of the ancients, any account of the nervous system worthy of notice.* Galen flourished 150 years before the Christian era: he was the most eminent physician and voluminous writer of that age, and gives a very good account of the nervous system. He considered the 'brain as the grand organ of intellect.' 'The rational soul,' he says, 'dwells in the brain, and by it we reason.' He probably believed in the immateriality of the soul.† The doctrines of Galen were implicitly received and taught by Ætius, Oribasius, Alexander, Trallianus, Cœlius Aurelianus, and by the Greeks who followed them; by the Arabians and their successors unto the time of Vesalius, who lived in the fifteenth century. Vesalius was a self-sufficient opponent of the doctrines of Galen. His views, however, with respect to the brain were much the same. In the beginning of the seventeenth century Laurentius defends Galen from the attacks of Vesalius. He says, 'that the different

* Cooke.

† Ib.

faculties of the soul reside in different parts of the brain and cerebellum, was a favorite doctrine of the Arabians.' '*Universa Arabum schola mansiones multas in cerebro statuit et singulis facultatibus singulas sedes assignat.*'

Dr. Charleton,* in a discourse written in the year 1664, says, 'that it is sufficiently evident, especially to physicians conversant about diseases of the head, that the seat and principal organ of the intellectual faculties is the brain, and that they are more or less perfect in their operations according to the divers temperament, magnitude, and schematism of that noblest organ.'

Dr. Cullen 'could not doubt that the operations of the intellect depend upon the brain.'† Dr. Gregory says, 'although at first sight certain faculties appear so purely mental as to have no connexion with the body, yet certain diseases prove, that a certain state of the brain is necessary to their proper exercise, and that the brain is the primary organ of the internal powers.' Haller considered 'the brain to be the seat of the intelligent principle.' Sir Isaac Newton and Locke considered the seat of the soul in that part of the brain where the nerves were supposed to meet, and which was thence called *sensorium commune*. Des Cartes placed the soul in the pineal gland; La Peyronie, in the *corpus callosum*; Richerand, in the annular protuberance; Willis, in the *corpora striata*; Sæmerring, in the water of the ventricles; and Digby, in the *septum lucidum*. Marherz maintained that the soul was diffused through the brain. Prof. Rudolphi calls the brain the seat of the mind; and Magendie says, 'the brain is the material organ of thought, which is proved by innumerable facts and experiments.' And, as Magendie formerly opposed phrenology, we may with propriety add his further testimony. 'The dimensions of the brain,' says he, 'are proportioned to those of the head. In this respect there is a great difference in individuals. The volume of the brain is generally in direct proportion to the capacity of the mind. It is rarely found that a man distinguished by his mental faculties has not a large head.' Pascal says, 'the human mind placed in a material world cannot act, or be acted upon, but through the me-

* Physician to the King.

† Edin. Jour.

dium of an organic apparatus.' Yet, he continues, 'the laws of thought have been expounded with as much neglect of organization as if we had already shuffled off this mortal coil.'

Voisin says, 'When I say that the brain is the material organ (he expresses it *the material condition*) of intellectual faculties and moral qualities, I have nothing to fear from the system of interpretations, (le système des interpretations.) The muscles and the bones are the organs, (conditions) of motion, but they are not the faculty which causes motion. The eye is the organ of light, but it is not the faculty of vision. I believe in the immateriality and immortality of the soul; but so long as this last is united to the body, it requires corporeal instruments for its manifestation; and these manifestations are modified, diminished, augmented, or deranged, by the disposition of these instruments.' 'This is the conclusion,' he adds, 'to which all rational physiologists and metaphysicians must come in the end.' It is precisely the language employed by Charron (de sagesse) two hundred years ago, who concludes a passage in these words:—'Aussi l'esprit selon la diversité des dispositions organiques, des instrumens corporels, raisonne mieux, ou moins. Or l'instrument de l'âme raisonnable c'est le cerveau.'

We might cite the authority of Cuvier, Bonnet, Tissot, Riel, Behrends, Scarpa, Prochaska, De la Torre, Fontana, Monro, Hunter, Home, Bell, Cloquet, Whytt, Brodie, Dumas, Le Gallois, Loder, Esquirol, Pinel, Georget, Burrows, Prichard, Haslam, Morgagni, Meckel, Greding, Boerhave, Vogel, Clarke, Watts, and a host of others; but we deem it quite unnecessary. We should not have digressed by alluding to the opinions of the learned, in so extended a manner, had it not been for the absurd and inconsistent practice of charging Materialism upon Phrenology. It is seen that all authors, of any note, admit the brain to be the organ of the mind, and that the mind is manifested more or less perfectly, according to the perfection of the organization. This all phrenologists admit, and the only difference between them and their opponents, is, that the latter describe the brain as a single organ, while the former contend that it is an assemblage of organs. The

same quantity and quality of matter is admitted by both parties; but phrenologists find parts to make the whole, and their opponents contend for a whole without parts. In fact, it is more difficult for those who oppose Phrenology, and consider the whole brain as the necessary means, by which mind manifests its different faculties, to exculpate themselves from the charge of Materialism, than for Phrenologists, who contend only for a part for each faculty, inasmuch as the whole is greater than a part. And when it shall be proved that six units are greater than one equal to six, we will yield the point at issue, and adopt the new system of calculation which is to be reared upon the ruins of Euclid, Newton, and La Place. We therefore leave the Reviewer to enjoy the glory of his position, *versus* the opinion of the learned world for the last three thousand years, and proceed to the second proposition.

2. 'That the energy and perfection of the mental faculties are not always proportioned to the development of the brain; that idiocy, in many cases, if not all, consists in a disease of the nerves, and that insanity affords no proof in favor of Phrenology.'

'The second argument is the alleged fact, that the energy and perfection of the mental faculties are always proportioned to the development of the brain, and that in idiots this organ is always defective. That there is a certain connexion between a sound organization and a sound mind, we do not pretend to deny. What the nature of this connexion is, cannot be ascertained. It seems analogous to the connexion which exists between the perfection of the Divine mind and the perfection of the universe. Men, who are destined to play an important part in the moral world, and to act powerfully on their age, are generally endowed with a sound corporeal frame. There are exceptions, but such is the rule. But this soundness of body is not confined to the brain; it is required, to a greater or less extent, in all the other parts of the system. Those who are by birth deficient in any essential part of the human frame, never become great men. A deaf and dumb person, or a blind person, may be capable of high intellectual effort, and exhibit many bright manifestations of mind; but such persons cannot exert any powerful influence on society; their intellectual manifestations are imperfect, and, so far as the defective senses are concerned, they even appear idiotic. A person destitute of all the senses, — if that were possible, — would probably appear wholly so. In like manner, a native

idiot has, doubtless, processes of thought going on within him. There is, evidently, a spirit at work in that crazy fabric. It is not in the essential properties of mind, that he is wanting, but, owing to a very imperfect organization of a very important part, he is unfitted to the world in which he lives. So far as that is concerned, he is foolish and inefficient. In many cases, if not in all, idiocy consists in a disease of the nerves; and, where this is the case, it can prove nothing with respect to the peculiar dependency of the mind on the cerebral parts; for we know that every disease tends to weaken the mental functions, whether its seat be in the chest, or the abdomen, or the brain. We had other views to offer, on this subject, tending to the same conclusion, but our limits press. For this reason we must pass briefly over the third and last argument, drawn from instances of insanity, which sometimes accompany injuries of the brain. On this topic we can only remark, 1st, that in most cases of insanity there is no injury of the brain, and, that such cases are not to be explained by the hypothesis in question; 2dly, that, according to the testimony of many physiologists, — among others, of Sömmering, whose authority on this subject will hardly be questioned, — the brain may be injured in many of its parts without any perceptible damage to the mental powers.'

The Reviewer says 'that there is a certain connexion between a sound organization and a sound mind, we do not pretend to deny.' But he adds, 'what the nature of this connexion is, cannot be ascertained.' What is the meaning of 'a certain connexion between a sound organization and a sound mind,' unless it be that the one is necessary to the other; and if so, that one is indispensable to the other? All mind must be equally perfect, and the perfection of mind cannot be considered as the natural cause of perfect organization, but sound organization the condition by which the perfection of the mind is made manifest. To admit, therefore, the connexion, is essentially to ascertain the nature of it.* That we often find a sound brain and a powerful mind with a diseased body, no one can dispute; we might cite many living instances; but that we ever find a sound mind with a diseased brain, we most unhesitatingly deny. We cannot gather from the above quotation the object of the writer's argument, unless it be to allude to facts too plain to be misinterpreted, and too evident to be opposed, in so confused a manner that he may have the future privilege of

* We mean, so far as we can ascertain the *nature* of any thing.

construing his own language to accommodate circumstances. He says, 'those who are by birth deficient in any essential part of the human frame, never become great men. A deaf and dumb person, or a blind person may be *capable of high intellectual efforts, and exhibit many bright manifestations of mind.*' Yet, he immediately adds, 'but such persons cannot exert any powerful influence on society.' Why not? He gives us a reason; 'their intellectual manifestations are imperfect, and, so far as the defective senses are concerned, they appear even idiotic.' Where are the lofty spirits of Homer and Milton, that they do not rise up indignant at the rude attempt to limit the soul of the blind man within the sphere of idiocy! * Whoever heard before that to be blind or deaf was in any degree idiotic! In Dr. Blacklock, who never saw, we have a striking instance of the ability of the blind to give glowing descriptions of colors. 'In his poetic writings,' observes an ingenious writer, 'Dr. B. alludes to the varied beauties of the visible world, and to the charms and delicacies of color, with all the propriety and with all the rapture and enthusiasm that ever fired the breast of a poet who had the fullest enjoyment of his eyesight.' One of the most intelligent youths with whom we are acquainted was born blind: he can read the English, the French, and the Latin languages with ease. He understands arithmetic and algebra, and is an exquisite musical performer. There is beauty and intelligence in his face, and grace in his movements; and yet our author would denominate him a partial idiot! We have seen Miss Julia Brace, of Hartford, who was born blind, deaf, and dumb; but her appearance was very far from being idiotic. But to give a decided finish to this novel philosophy, our author adds, 'a person destitute of all the senses, if that were possible, would probably appear wholly so.' We should say, not wholly *idiotic*, but wholly *dead*. The hypothesis is itself an absurdity. A supposition embracing death, to prove the phenomena of life! We make no reply to this.

Further: In speaking of a '*native idiot*,' he says, 'it is not in the essential properties of mind that he is wanting, but, owing to a

* As the 'essential part,' supposed to be 'by birth deficient,' has reference only to the external senses, it can make no difference, so far as our argument is concerned, whether that part be destroyed before or after birth.

very *imperfect organization of a very important part*, he is unfitted to the world in which he lives.'

We congratulate the Reviewer on his arrival upon the earth. He condescends to speak of an '*imperfect organization of a very important part*,' but he states his proposition as play-boys state riddles, to be guessed at. It is unlike a riddle, however, inasmuch as it does not furnish elements within itself for its own solution. It would gratify our Wonder and Curiosity, to know *what part* he means; for he adds, 'so far as *that* is concerned, he is foolish and inefficient.' Now, if '*that*' refers to the 'very important part,' would he have us infer that in '*that part*' alone he is foolish, and all other parts not? Such is the natural construction of his language, although thus construed, we do not understand him. If the 'native idiot' is wanting in none of 'the essential properties of mind,' why does he not manifest those higher powers of the soul, not subject to matter? Again:

'In many cases,' he continues, 'if not in all, idiocy consists in a disease of the nerves; and, where this is the case, it can prove nothing with respect to the peculiar dependency of the mind on the cerebral parts; for we know that every disease tends to weaken the mental functions, whether its seat be in the chest, or the abdomen, or the brain.'

That idiocy generally consists in a '*disease of the nerves*,' is not the fact. That disease may affect the manifestations of the mind by affecting the brain, directly or indirectly, we do not deny. But further than this, we question whether the Reviewer can find a physiologist in the world, of any note, to agree with him. Besides, the nervous system of idiots, aside from the brain, is generally perfect and without disease. What does the Reviewer mean by saying '*that every disease tends to weaken the mental functions*?' If he intends the functions of the mind proper, we ask, Can disease weaken the immortal principle? If, by mental functions he means organic functions, what are they?

The Reviewer quotes Rudolphi and Dr. Prichard as *authorities* against Phrenology. In this we have a striking instance of the reaching of '*short-armed ignorance*.' The Edinburgh Phrenologists exposed the ignorance of Rudolphi in relation to the subject,

some years ago. And as to Dr. Prichard, he is hardly the man for the Reviewer, whatever he might say. We have a volume of his before us, which holds the following language:—‘The senses are more perfect in Negroes than in Europeans, especially those which are of the most importance to the savage, and less necessary to the civilized man, viz., the smell, the taste, and hearing; and a particular provision is made in the anatomical structure for the perfect evolution of them. This perfection of the rude faculties of sense is not required in the civilized state, and therefore gives way to a more capacious form of the skull, affording space for a more ample conformation of the brain, on which an increase of intellectual power is probably dependent.’* This was published in 1813. In 1829 he wrote a book on the ‘VITAL PRINCIPLE,’ in which he contends that ‘volition, judgment, reflection, ratiocination, and imagination, are acts of the soul or immaterial mind, without the co-operation of any part of the corporeal structure; whereas Memory,’ the favorite faculty of the Reviewer, ‘requires the immediate co-operation of the brain!’ There are many other curious absurdities in this book well worthy to be classed with those of our author. In a recent work, the same writer has come to the astounding conclusion that the seat of the intellect is in the cerebellum! Such authority is worthy of such a Reviewer.

Cuvier, on whose authority the Reviewer leans with so much confidence, admitted the fundamental principles of Phrenology before his death; and even at the time of the report to the Institute, his acknowledgments in conversation were of the most respectful and favorable character, in relation to the science. His report, however, was upon the *anatomical* discoveries of Gall and Spurzheim, which have been since universally admitted. This report was made in 1808, and concluded in the following words:—‘It is of importance to repeat once more, if it were only for the information of the public, that the anatomical questions with which we have been engaged in this report, have no

* Compare this with the views of the same author in relation to Africans, as quoted by the Reviewer.

immediate and necessary connection with the physiological doctrine taught by Dr. Gall, with regard to the functions and the influence of the relative size of the different parts of the brain ; and that all we have examined with respect to the structure of the encephalon might be equally true or false, without any conclusion being drawn for or against this doctrine, which can only be *determined by quite different means.**

With regard to Insanity, the Reviewer remarks, 1st. 'That, in most cases of insanity, there is no injury of the brain, and that such cases are not to be explained by the hypothesis in question ; 2dly. That, according to the testimony of many physiologists, among others, of Soemmering, whose authority on this subject will hardly be questioned, the brain may be injured in any of its parts without any perceptible damage to the mental powers.'

In the positions assumed by the Reviewer, as above stated, he is peculiarly unfortunate. If he had endeavored to state the opposite of truth, we should most cheerfully congratulate him on his entire success. We would rather attribute his assertions, however, to ignorance, than to wilful misrepresentation.

It is a just conclusion of Pinel, 'That all the speculative writings of the analysis of the human understanding, have contributed nothing to elucidate its disorders.' Some have strangely considered 'that Insanity was purely a mental affection,' and as Lord Bacon remarks, 'most unfortunately for the subject of disease.' Dr. Burroughs, who is at the head of one of the first Hospitals in Europe for the Insane, and was no phrenologist when he wrote his book, in speaking of the causes of Insanity, says, 'Were it not for some such influence, whence comes it that the dissections of Bonnetus, Morgagni, Meckel, &c., which prove beyond dispute that morbid appearances are almost always detected in the brains of maniacs, and which long since were collated by that celebrated physiologist, Haller, were so little regarded ?'

'Where is the anatomist,' he continues, 'who will dare maintain that a brain is free from disease or structural change, because, after

* We would respectfully advise the authors of the articles on Phrenology, in the North American Review and Christian Examiner, to read the Report of Cuvier, before they refer to it again as authority adverse to that science.

the most minute inspection, he cannot discover any? That eminent physiologist, Haller, conceived that, in disorders of the mind, the brain and its connections are usually affected; and when, in some rare instances, we can discover no disease of these parts, we may conclude, that it is seated in their very elementary particles, or has not been sought for with sufficient patience and attention. 'Is not the human system subject to, and influenced by peculiar diathesis? Will the scalpel detect the apoplectic, hydrocephalic, scrofulous, or gouty diathesis? The testimony of Morgagni, Cheyne, Abercrombiè, Powell, Stark, &c., prove that death from apoplexy frequently occurs; and yet no evidence of cerebral lesion has been discovered on the minutest investigation. There are several diseases that cannot be detected by dissection. Why then should not the brain be influenced by the same laws, and undergo a specific change, and be the site of disease when there is no visible trace? Why, in fine, should we expect to discover by the eye the maniacal diathesis, when all others are impenetrable?' One of Shakspear's characters in "The Twelfth Night," is made to say, "*Nay, I'll ne'er believe a mad-man, till I see his brains.*"

Hippocrates, Aretæus, Æteus, Alexander Tralles, Actuarius, and most of the ancient authors, considered that the flowing of too much blood to the *head* would produce insanity. Crichton thought that in insanity, the 'arterial action of the brain itself was altered from its healthy state.'

The most 'famous and learned' German, Dr. Wirtzvng, who wrote, A. D. 1605, has the following curious, though reasonable classification of the '*diseases of the braines.*' 'The diseases of the braines,' says he, 'are divided into three kindes, to wit: First, if their accustomed operation be hindered. Secondly, if they be perished and enfeebled. Thirdly, if they be altered from their good disposition and nature into another: like as when a man falleth into foolishnesse and forgetfulnesse, that he forgetteth his writing, reading, and his nearest kindred, yea, his own name: the which in truth proceedeth out of a coldnesse of the brain, like to the palsey, and falling sicknesse, and such like accidents which sodainely assault men.' Prof. Diemberbroeck, of Utrecht, in the year 1694, expressed similar views.

Esquirol, in speaking of Demency, says, 'Persons are in this state, because exterior objects make too weak an impression upon them, which is owing either to the sensitive organs being weakened, or the organs which transmit the sensations having lost their energy : or, finally, because the brain itself has not sufficient power to receive and retain the impression which is transmitted to it ; whence it necessarily results that the sensations are feeble, obscure, and incomplete. Therefore the patient can neither form a correct idea of objects, nor compare, associate, nor abstract ideas : he is not susceptible of sufficient attention, *the organ of thought being deprived of that tone*, which is necessary to the integrity of its functions.'

In chronic demency, the brain, as has been said, is probably in a state of atony, or what Cullen calls collapse. Prof. Diemerbroeck (1694) says, 'When the seat of the principal faculties was endangered, and the imagination depraved, it was a sign the patient's brain was out of order.' In 167 cases of insanity out of 216, Greding noticed a thickening of the cranium ; in a considerable number of cases hydatics in the plexus choroides ; and in 51 out of 100, softening of the brain. Dr. Haslam asserts that 'insanity in every instance is accompanied by organic alterations in the brain, and in these alterations he places the proximate cause of the disease.' He made many dissections. In Esquirol's examination there is scarcely a species of disorganization which he has not found in the brain of the insane. Dr. Copland, in his 'Dictionary of Practical Medicine,'* says, 'The functions of the brain, consisting of sensation, volition, instinctive desires, intelligence, and moral sentiments, it is evident that the phenomena of the disease should be sought after in this series of manifestations ; and that they will vary, in respect of their particular states, their inten-

* This work is regarded as the highest authority, both in Europe and America. The Massachusetts Medical Society take five hundred copies of it, for the use of its members, and it has been recommended by Drs. Warren, Hayward, Ware, Wyman, and Channing, of Boston ; by Drs. Perkins, and Hosack, of New-York ; and by Drs. McClellan, Hewson, and Parish, of Philadelphia, as the most valuable and learned medical work in the English language.

sity, and progress, according to the seat, the nature and extent of the organic change.'

We might quote as extensively with regard to this point as we did with reference to the brain ; but the subject does not require it. It follows as a matter of course, that those who admit the brain to be the organ of the mind, will acknowledge that mental derangement has its proximate cause in that organ. It has been seen that the brain is universally admitted to be the organ of the mind. But those who oppose phrenology assume that it is a single organ, and that the division of phrenologists is perfectly arbitrary, and is not susceptible of proof. Let it be observed, then, that they admit the dependency of the mind upon its instrument, the brain. Now it can make no difference, as to the perfection of the brain, whether we view it as 1 or 6 ; $1 - \frac{1}{6}$ destroys the perfection of 1 as 1 ; and the result of $6 - 1$ is the same. If the brain be a perfect *one* as it exists uninjured, it is as obvious as figures or reason can make it, that the destruction of any part of it must necessarily render the brain imperfect as a whole. If the product of $6 - 1$ is 6, then 1×6 is 0. That is, if the loss of a small portion of the brain, allowing it to be a single organ, does not affect the manifestations of mind ; then on the same principle, one fourth, or one half, or the whole may be taken without impairing them.

If the brain be a single organ, how is *monomania* to be explained ? There is no relation without parts, no derangement without relation. A simple thing may be deranged in relation to other things, but not in relation to itself ; or, the parts of a complicated thing may be deranged in relation to each other. That the immortal mind itself can ever be deranged, we trust no one will presume to assert, but how is it that a single organ is false to one of the faculties, and true to all the rest ? The physical organ can have no election of its own, as to what faculties it shall manifest, or what not ; it is simply an instrument subject to a higher power.

In a letter to the writer of this article, one of the first physiologists of Europe thus expresses himself :—' I visited some of our asylums last summer, and am sensible of very great progress in the importance now attached to occupation and moral treatment of a

systematic kind, and also of an improved condition of the patients. Phrenology has more to do with this than most medical men are willing to admit, with all the prejudices against it which still exist. I have had strong testimonies, from five or six men in charge of public Institutions, to the value of the phrenological exposition of insanity, and the additional power over the patient which it confers, and two of these were from men whose leanings were for years against the science.'

We are happy in being able to add the testimony of Dr. Woodward, physician to the Hospital for the Insane, at Worcester, Ms. The following is extracted from a letter written by that able physician, in answer to inquiries respecting Phrenology. We are obliged to omit one very important case, mentioned by Dr. Woodward, on account of its peculiar character.

‘Worcester, Nov. 18, 1834.

‘DEAR SIR:—I received yours of yesterday, and in reply I regret to say that my time will permit me to be very brief only, in answer to your queries, concerning Phrenology. In the first place, I am not myself much versed in the science, and have not sufficient experience to judge with accuracy of organology. From the phrenologists who have visited the Hospital, we have learned that some of our patients have very marked coincidence between the external manifestations and the propensities of disease: we have had from 15 to 20 patients who have committed, or attempted homicide; these generally have *destructiveness* large. Many have great propensity to *tear* as well as to *fight*; which I suppose would indicate the destructive propensity. Many of the Insane have *bad heads*, phrenologically speaking; this is not, however, a rule without many exceptions. I should think that two facts would impress a phrenologist in passing through our halls: one is, the very great number of patients who have *Ideality*, and *Wonder*, in disproportion to other organs; another is, the very frequent, not to say general defects, of the perceptive organs. I have adopted this inference from these facts, that the perceptions of these individuals are indistinct; they therefore do not get clear impressions of the actual qualities of things; and the Ideality and Wonder having vivid views of imaginary qualities, the impressions of the latter are mistaken for the former; every thing is magnified, and excites astonishment; for instance, a middle sized man took a fancy to a coat of green color, which I wore; he was very desirous of purchasing it. I told him I would give it to him when he was large enough to have it fit; he declared that he was

larger than myself, and although it was supposed that he would not exceed the weight of 140, he declared that he should weigh 380 at least. Every thing was large with him; he fought in imagination, great bears, tigers, and lions; and he often, hand to paw, destroyed 15 or 20 of these in one night. In him *Form* was exceedingly small, and *Ideality* and *Wonder* very large. *Benevolence* was very large also with him. And although he would set and fight imaginary beings for hours together, till he was drenched with perspiration, yet he never laid his hand on a fellow patient or attendant, during the whole of his excitements.

'The insane often have waking dreams, and the illusion is not corrected: they often, too, mistake real dreams, for realities: what is called false perception of sight and hearing, I am inclined to believe generally arises from an action of that portion of the brain which takes cognizance of impressions by these senses, rather than from any diseases of the senses themselves: this may not be always the case. I have remarked that my patients often speak of friends and scenery, which they saw in the *night*, and of visions and ghosts, which appeared to them in the *night*; in these cases there must be an action of the portion of brain that takes cognizance of visual objects. When awake they do not correct these false impressions, and the whole is a reality. A singular case recently occurred, related to me by the patient after he recovered from his attack of insanity. He was a fine singer, and he had *tune* and *time*, well developed, and although when highly excited he sung correctly, yet he believed that the sound of his voice went quite round the globe before he heard it himself; and the notes came home to him one by one, after this rapid revolution, and he listened to them with delight and astonishment. I do not pretend to account for this, unless the organ *re-acted* the *tune over* again, if the expression is intelligible; the fact is interesting, and throws light upon some of the principles of mental perception; at any rate no new impression was made on the organ of hearing. The case of somnambulism that was with us last winter, was very interesting in some particulars: you doubtless have read Dr. Belden's account of the case. All the disease was situated in the front and superior lateral parts of the head: the development was very fine, especially of the perceptive organs, and of *Ideality*, *Wonder*, and *Imitation*: the posterior region was small, or at least rather moderate. The organ of Vision and that portion of the brain that recognizes visual impressions, was affected; the group of organs about that region were most affected in disease, and a tender spot had existed over *Wonder*, for a long time. In the paroxysm, she could sing correct-

ly; at other times not; could imitate very accurately; indulged in *mirth*; apparently had no more command of feelings, than we do in dreams; acted without restraint, and yet in all the paroxysms never uttered one lascivious word, or exhibited one lascivious action. One more case amongst a hundred others, I will briefly state, and my second sheet will be filled.

‘An old man, seventy or more, has been an inmate of a prison and the hospital 26 years without interruption; he of course has had very little opportunity to exercise his perceptive faculties, particularly *Individuality*, and *Eventuality*. The cranium over these organs is so depressed as to make quite a cavity; he scarcely recollects any person or event, does not know his own age, the time that he has been confined, whether his wife is living or not, or apparently any circumstances about his family; and yet he is not idiotic.

I know not how to account for the symptoms of *monomania* in any other way than by supposing some organs diseased, and others more or less sound. In this sense almost all the insane are *monomaniacs*. Very few have all the faculties equally affected. Even in idiocy the faculties are not all prostrated alike. One idiot will retain his love of order, and keep his room and person clean; another will delight in disorder, preferring rags to garments, and filth to cleanliness: one will retain affection for his friends, another will assail them with fury. We have one in this Institution who will play a great variety of tunes on a flute with correctness and spirit, who is perfectly naked, tearing up every article of clothing that he can get, to convert into ornaments for his head and limbs.

‘I have written this hasty scroll without care, and without opportunity even to correct a line.

‘Yours very respectfully,

S. B. WOODWARD.’

The Reviewer quotes an account of Dr. Prichard’s visit to the asylum of Esquirol. The learned Dr. says that while inspecting the crania and casts at the Royal Hospital at Charenton, he was assured by M. Esquirol that the testimony of his experience is entirely adverse to the doctrine of the phrenologists, and that this observation was made in the presence of M. Metivié, and received his assent and confirmation.’

‘We too can say,’ says a learned writer in the Edinburgh Phrenological Journal, ‘that “*while inspecting this collection, we were assured*

by M. Esquirol that the testimony of his experience is entirely adverse to the doctrine of the phrenologists ;” and that, on the same occasion, Metivié repeated the assurance of his master. But when we asked for the exhibition of a proof, what was the result ? Metivié took up one of the lunatic skulls, on the exterior of which were two considerable depressions, to which there was nothing corresponding internally ; and nevertheless, said he with triumph, Gall affirms that the outer surface of the skull represents faithfully the form of the inner ! We asked if he considered the skull to be *diseased* ? He answered that it was. We then asked if he was aware that Gall expressly limited his proposition to *healthy* skulls, and declared that, in disease, great aberrations of thickness and form might exist, without any necessary relation to the form of the brain ? Metivié looked utterly incredulous, and asked “ what right Gall had to make any exceptions ? ” To this strange question it could only be answered, that Gall *made* nothing, but only recorded what he saw existing in nature ; and, that, accordingly, when he stated that the rule did not hold in disease, he merely gave expression to a truth in natural history, discoverable by observation alone. But no mortal before Metivié would thence argue that a healthy nose, for example, was not of a shape called Roman, simply because another nose, *in a state of disease*, had a greater resemblance to a Dutch cauliflower. Gall *observed* the want of conformity caused by disease between the two tables of the skull, and wisely inferred that, on account of that source of error, *proofs* must be sought for only in the state of health, and in so far gave evidence of his accuracy and honesty ; whereas Metivié, by his total ignorance of this, and even of the first principles of phrenology, only proved his own incompetency to judge in the matter to which his testimony was applied. — So far from the evidence which these six hundred skulls and casts afford being really adverse to phrenology, the fact is so much the reverse, that we would willingly peril the whole science on the very experiment which Dr. Prichard proposes. We would even admit Messrs. Esquirol and Metivié to be the sole judges, provided they would previously prove to the satisfaction of impartial persons, their “ competency ” to decide on the form and phrenological indications of the skulls, by each accurately pointing out the situations and natural size of the cerebral organs, in any three skulls in the collection. But we expect, in return for this concession, that if they fail in the preliminary attempt, and prove themselves ignorant both of the doctrine and its practice, Dr. Prichard will, in turn, admit that their opinion is valueless on account of that incompe-

tency. We know it to be a fact, that when we visited Ivry in September, 1831, they were in the state of ignorance above represented, and that, nevertheless, they then gave the same unhesitating testimony against Phrenology, which Dr. Prichard says they gave to him. But we had the means of estimating its real worth, which he had not; and hence the error into which he has fallen.

‘Dr. Spurzheim used to expatiate on the interest and value of Esquirol’s collection, and express a hope that it would one day be given to the public, and we ourselves have ever viewed it in the same light. It was when following Esquirol’s Clinique that we first became thoroughly acquainted with the truth of Phrenology.

‘M. Georget, whose talents are admitted, whose opportunities of observation were long equally extensive with those of Esquirol (seeing that they were for some years derived from the same cases in the same hospital,) and who was equally conversant with the history of many of the individual skulls, has avowed to the world, his deep and well-founded conviction of the reality and importance of Phrenology;—a result which could scarcely have happened, except from the force of truth, considering that he is the nephew of Esquirol, was brought up under his professional auspices, and was naturally inclined to receive his tenets in preference to those of any other authority. Voisin and Falret, also young and able writers, educated essentially in the same school, and with the full knowledge of the nature of Esquirol’s collection, have not hesitated to publish their belief in the truth of Gall’s doctrine.’*

III. We shall now proceed to consider the third proposition : That Comparative Anatomy furnishes evidence against the science.

‘How,’ he asks, ‘are we to explain the fact that men of a lean habit manifest the intellectual powers in as great perfection as those of a contrary habit? since, according to Spurzheim, the volume of the brain increases with the size of the body. But, above all, if it be true, as phrenologists assert, that this dependence of mind on brain holds through all the orders of animated nature, why is not the brain in the lower tribes always proportioned to the amount of mind manifested by them? It requires but a cursory observation to perceive that this is far from being the case. Not to insist on the example of vertebrated animals, in several of whom the proportion of the brain to the rest of the body is larger than in man; what are we to say of the astounding manifestations of mind displayed by the insect world; exemplified, not only

* Edin. Jour. No. 40.

in the wonderful contrivances of the bee, the spider, and the common ant, but in actions more wonderful still, as having no immediate reference to the necessities of life, and as bearing the nearest brute resemblance to the peculiar manifestations of human beings. Such are the wars of conquest carried on by different nations of the termites, in which the vanquished become the captives and slaves of the victors, and are subjected by them to all kinds of servile labor. Now in these animals, the brain (if there be any) is not only small, absolutely and relatively; but its very existence is exceedingly problematical. Many physiologists, with Linnæus at their head, have denied it. Cuvier, whose authority on such subjects is paramount, called the ganglion above the œsophagus a brain, but denied that it bore any analogy to the cerebral organ in vertebrated animals. And, if it be true, that some insects, as the caterpillar, for example, will live, and even walk, for some days after the loss of their heads, it is evident that the *will*, at least, supposed by phrenologists to be a resident in the brain, cannot reside there in insects.'

It is said that 'there subsisted an emulation of a very extraordinary kind, between Amasis, king of Egypt, and the king of Ethiopia, which was maintained by alternately proposing to each other questions of difficult solution, and on which they would sometimes stake whole districts of their dominions.' They contended with each other for pre-eminence in wisdom. The king of Ethiopia made a very strange demand; he required no less, than that 'Amasis should drink up the sea.' Unable to solve the difficulty, he asked the aid of Bias, the philosopher of Priene; who replied, 'Bid the Ethiopian withhold the rivers from running into the sea, until Amasis shall have drank that which is now sea; for the requisition concerns that only which is such at present, not what shall be hereafter.'

The Reviewer, deficient in the wisdom of Bias, has commenced drinking up rivers that do not run into the sea. He labors with respect to difficulties which have their origin with himself; and if his object be merely to indulge in *logical sport*, we shall be the last to interfere with his amusement, provided he does not trespass upon ground that belongs to others. The position contained in the following paragraph is wholly unauthorized by phrenologists:—

‘How are we to explain the fact, that men of a lean habit manifest the intellectual powers in as great perfection as those of a contrary habit? since, according to Spurzheim, the volume of the brain increases with the size of the body.’

Spurzheim says, ‘though no adipose substance be deposited in the brain more than in the lungs, it still participates in the nutrition of the body as well as every other organic part, and therefore, its convolutions are more plump, and more closely packed together in well-nourished men and animals, in the flower of youth and vigor, than in the old, lean, and emaciated, or of those who have died of hunger, or of lingering diseases.’ This is to be understood as relating to the brain of the same individual under different circumstances. He distinctly rejects the various modes of measuring the faculties by deciding upon the absolute or the relative size of the brain. The position that man has, absolutely, the largest brain of all animals, according to Aristotle, Pliny, Galen, and others; or, that he has the largest brain in proportion to his body, or his nerves, or the spinal marrow, or the face; or, that there is a certain proportion between the forehead and the face, is rejected by Spurzheim, and by Phrenologists as uncertain, and therefore useless. The same may be said of the facial angle of Camper, and of Daubenton’s occipital angle. In the language of Spurzheim, ‘the faculties of the mind cannot be determined either from the form or size of the whole head, or from comparisons of one part with another.’ And Mr. Combe remarks, that ‘it ought to be kept constantly in view, in the practical application of Phrenology, that it is the size of each organ in proportion to the others *in the head of the individual observed*, and not their *absolute size*, or their size in reference to any standard head, that determines the predominance in him of particular talents or dispositions.’ But we cannot further enlighten our readers upon the subject in this communication, and we refer them to the works of Spurzheim and Combe, which are ample and explicit in relation to the points involved.

No one can turn his attention to the insect world, without experiencing that wonder, which is the parent of adoration! It has been said that the work of ‘Lyonnet upon the Caterpillar,’ is alone

sufficient to prove the existence of an all-wise God. However inadequate this proof may appear to the sceptic who seldom reasons beyond the mere objects of sense, it is not for us to say, but we cannot conceive how the evidence afforded in the perfection of the little insect, hardly visible to the naked eye, should fail to dispel his doubts, and to stamp upon his very soul the truth, that there is a God.

‘ If,’ says the celebrated Swammerdam, ‘ while we dissect with care the larger animals, we are filled with wonder at the elegant disposition of their limbs, the inimitable order of their muscles, and the regular direction of their veins, arteries and nerves ; to what a height is our astonishment raised, when we discover all their parts arranged in the least, in the same regular manner. How is it possible but we must stand amazed when we reflect that those animalcules, whose little bodies are smaller than the finest point of our dissecting knife, have muscles, veins, arteries, and every other part common to the larger animals — creatures so very diminutive that our hands are not delicate enough to manage, or our eyes sufficiently acute to see them ; insomuch that we are almost excluded from anatomizing their parts, in order to come to the knowledge of their interior construction !’

It must be obvious to every person that the entomologist has difficulties to meet and overcome to which the operator in the other branches of physiology is not liable. In the dissection of an insect, the microscope is required to aid the eye, and the most delicate instruments to hold and divide the parts ; and observation must necessarily be somewhat uncertain and limited. What is obvious in the larger animals upon the first inspection, requires a series of experiments, to detect in insects. The smallness of their parts, the variety of their forms, and the almost invisible indications of their sensitive nature, render them objects, which, to be understood and explained, requires the wisdom of a philosopher and the patience of a saint. Considering therefore the peculiar difficulties of entomology, it is not surprising that its professors should arrive at different results in their investigations. It is rather a matter of surprise that they have

agreed so uniformly in their results. Even as far back as the time of Pliny, the *perfection* of the smallest insect was acknowledged, although its structure had not been much investigated. He says, 'We admire the shoulders of elephants that carry towers; the necks of bulls, and the furious tosses from their horns; the ravages of tigers, and the manes of lions: but we should know that nature is no where more complete and perfect than in the smallest objects.'

In observing insects we cannot fail to discover movements which indicate consciousness, perception and volition. They perceive external objects, they ascertain their qualities, they secure their advantages, and avoid their dangers. They overcome unforeseen and complicated difficulties, they observe laws for their common safety, and execute plans for their common support, with a promptness and success which are truly wonderful. All these phenomena prove the existence of the senses, of a nervous system, and of all those beautiful contrivances which characterize the organic system of man and animals, and result in the same phenomena. We consider this evidence valid without the aid of dissection. When we observe that the insect sees, dissection may discover the eye and optic nerves; when we prove that it hears, dissection may detect the auditory apparatus; when we see that it moves, dissection may exhibit the muscles; when we perceive that it has consciousness, perception, and volition, dissection may demonstrate the existence of a brain and nervous system. But without this correspondence, the evidence afforded by dissection would be considered as inadmissible. A similitude of parts might be discovered, but their functions would remain in impenetrable obscurity without the external indications of their existence.

The ancients, in not finding anything in insects resembling lungs, took it for granted that they did not breathe; 'but they were ignorant of the universal law of nature as stated by Cuvier, that life and flame have this in common, that neither the one or the other can subsist without *air*; all living beings, from man to the most minute vegetable, perish when they are utterly deprived of

that fluid.' Since the time, however, of that absurd and unphilosophical conclusion, the microscopic and anatomical observations of modern entomologists have proved that insects are furnished with respiratory organs, and that air is as necessary to them as to other animals.* They have no lungs, and do not breathe through the mouth, but they have their *spiracles* and respiratory vessels. Some have doubted whether insects have the sense of hearing, because they do not appear to have organs suited to that sense; but others have proved conclusively by experiments, that they do hear, although they may not have succeeded in demonstrating the apparatus. Until the time of Chabrier, but little was known with regard to the muscular system of insects. Their motions and flights had always been known, but the physical structure necessary to such rapid movements had never been analyzed and displayed. Some have supposed the insect destitute of a circulatory system, but others have proved that they have a system analogous to it, or one answering the same end. And some have conjectured, according to the same sort of philosophy, that insects have no brain, or nervous system, because their arrangement is not analogous to that found in men and vertebrated animals. This kind of reasoning is quoted with apparent approbation by the Reviewer; a reasoning that would make the similitude of function to depend upon the analogy in the appearance of parts; a philosophy of effect without cause, inasmuch as it admits all the interesting phenomena in insects, but pretends to deny the existence of the organic means by which nature invariably manifests such phenomena. Size, form, texture, color, and the relation of parts, are subject to very different laws in different animals. The brain is to the insect, what the brain is to man; it serves similar purposes, although it may differ widely in its appearance and location. In some insects the brain may be located within the skull, in others extended in the form of ganglia through the system, as in the caterpillar. To study the laws of size, and shape, and power, we must compare the parts of an animal with the parts of another of the same kind. The Deity has defined the nature of every species of animals, and

* Kirby and Spence.

to observe and investigate nature, as modified by organization in each species, we consider to be true philosophy. But, to render this position more apparent, we will refer to the strength of insects, compared to the strength of the larger animals. Latreille mentions 'a flea of moderate size dragging a silver cannon on wheels that was twenty-four times its own weight, which being charged with powder, was fired without the flea's appearing alarmed.'

'It is fortunate that animals of a larger size,' say Kirby and Spence, 'as has been well remarked, especially noxious ones, have not been endowed with a muscular power proportionable to that of insects. A *cockchafer*, respect being had to their size, would be six times stronger than a horse; and if the *elephant*, as Linné has observed, was strong in proportion to the *stag-beetle*, it would be able to pull up rocks by the root, and to level mountains. Were the *lion* and the *tiger* as strong and as swift for their magnitude as the *Cicindela* and the *Carabus*, nothing could have escaped them by precaution, or withstood them by strength. Could the *viper* and the *rattlesnake* move with a rapidity and force equivalent to that of the *Iulus* and *Scolopendra*, who could have avoided their venomous bite? But the CREATOR, in these little creatures, has manifested his Almighty Power, in showing what he could have done, had he so willed; and his goodness, in not creating the higher animals endued with power and velocity upon the same scale with that of insects, which would probably have caused the early desolation of the world that he has made.'

The muscular system of some insects is truly astonishing. Lyonnet counted in the caterpillar of the *Cossus*, 4061 muscles; so that this minute animal has 3532 muscles more than the lord of creation.* 'To get some idea from facts of the extraordinary contractile power in insects, extract the sting of a bee or a wasp, with its muscles, which appear to be attached to powerful cartilaginous plates, and you will find it to continue for a long time to dart forth its spicula, almost as powerfully as when moved by the will of the animal. A still more extraordinary instance of irritability is exhibit-

* Kirby and Spence.

ed by the *antlia*, or instrument of suction of the butterfly. If this organ, which the insect can roll up spirally like a watch-spring, or extend in a straight direction, be cut off as soon as the animal is disclosed from the chrysalis, it will continue to roll up and unroll itself as if still attached to its head : and if, after having apparently ceased to move for three or four hours, it be merely touched, it will again begin to move and resume the same action. This surprising irritability and contractility of muscle doubtless depends upon the peculiar structure of the *antlia*, which is composed of an infinite number of horny rings, acted upon by the muscles, more numerous probably than those which move the trunk of the elephant. The motion only ceases when the muscles become dry and rigid.*

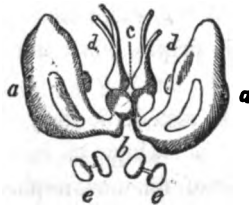
From what has been stated, it may be seen that, in the animal economy, there is analogy of function, if not similitude of parts. That certainty of function implies certainty of parts. But Kirby and Spence observe 'that analogous parts have analogous uses, at least as far as *primary* uses are concerned. That all the invertebrate insects, though gifted with numerous peculiarities, present the most striking picture of those animals that have an internal skeleton, and more particularly of the *mammalia*, and that it may be assumed as a probability, that where facts do not prove the contrary, the function of analogous organs is more or less synonymous, though perhaps the structure and *modus operandi* may be different.'

Enough has been said, we trust, to show the absurdity of acknowledging a function without an organ, on account of variation of structure. The organ may be small and intense, endowed with great power, or large and relatively deficient. The brains of insects are not endowed with more power in relation to those of the vertebrated animals, than their muscles. It is therefore as consistent to contend for motion without muscles, as for consciousness, perception and volition, without a brain. In fact, from the highest order of animals, down to the lowest, there is a more perfect analogy pre-

* Kirby and Spence.

served in the brain and nervous system than in any other parts. In confirmation of this we might give numerous drawings, but we can only refer our readers to the plates of Lyonnet, Swammerdam, Kirby and Spence, and others. In one respect at least there is an *external* resemblance between the brain of insects and that of vertebrated animals; it most commonly consists like them of two lobes, often very distinct—a circumstance which not unfrequently distinguishes the other ganglia.*

Fig. 1.



- a. 'The cortical substance of the brain, showing, not only in what manner it communicates with, but likewise how it springs from the brain.
 b. The second pair of the particles of the brain, from which the cortical substance derives its origin.
 c. The first pair of the brain's particles, from which issue *dd.* bipartite nerves.
 e. The fourth pair of the brain's particles, showing likewise in what manner the particles of every pair communicate with each other.'

Blumenbach says, 'excepting those animals which inhabit coral, and the proper zoöphytes, most genera of the other orders of the Linnæan class of vermes, are found to possess a distinct nervous system, although former anatomists have expressly declared in several instances that no such parts existed.'

Although no nervous system has been detected in many internal worms and the proper zoöphytes, yet considering the imperfection of comparative anatomy, we look forward with confidence to the time when the faint lines of its existence may be traced and demonstrated. But to return. 'The brain of the bee,' says Cuvier 'is small and divided into four lobes. It produces immediately the nerves which are distributed to the different parts of the mouth, and the two large optic nerves which are dilated and applied behind each eye, as in the *dragon flies*. There are afterwards

* Kirby and Spence.

seven ganglia, three of which are in the corselet, and four in the abdomen. Swammerdam says, 'The brain of bees consists of four pair of distinctly conspicuous parts, to which a fifth may be added, namely, the spinal marrow within the skull, or the principal, or origin of these little parts; nor can I, besides these, find any others in this insect, not even the so famous pineal gland.' Figure 1, is a drawing of the brain of the bee, made by him nearly two hundred years ago, 'represented much larger than in nature.'

'In the full-grown caterpillar, besides the brain there are eleven ganglions, the chords of the four first internodes being double, and the rest single: from each ganglion proceed two pair of nerves, one from each side. In this the lobes of the brain form an angle with each other. This insect has ninety-two nerves: whereas, anatomists count only seventy-eight in the human subject. Those which originate in the spinal marrow are mostly derived from the ganglions, and are sometimes interwoven with the muscles, as the woof with the warp in a piece of cloth; those from the three or four first commonly rendering to the muscles of the legs, wings, and other parts of the *trunk*, and those from the remainder to the *abdomen*. After their origin they often divide and subdivide, and terminate in numerous ramifications that connect every part of the body with the *sensorium commune*.*'

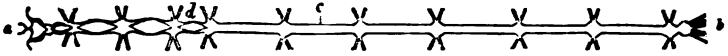
The fact noticed by the Reviewer, that the bodies of insects exhibit signs of life after being separated from the head, is neither new, nor so *strange* as some other things. 'If the head be cut off, the remainder of the body will continue to give proofs of life and sensation longer than the head: both portions will live after the separation, sometimes even for a fortnight; but the largest will survive the longest, and will *move*, walk, and occasionally even *fly*, at first almost as actively without the head, as when united to it. Lyonnet informs us, that he had seen motion in the body of a wasp *three* days after it had been separated from the head; and that a caterpillar even *walked* some days after that operation; and,

* Kirby and Spence.

when touched, the headless animal made the same movement as when entire.*

Whether these phenomena are ascribed to irritability, automatic life, or to a cerebral system, is of but little importance, so far as Phrenology is concerned. If we refer them to the two former, we necessarily exclude all consciousness, perception and will; and if to the latter, what is the nature of that system as developed in insects? There are many facts which lead us to suppose that it 'is of a mixed kind, combining in it both the cerebro-spinal, and the ganglionic systems.'† There is much truth in the opinion of Cuvier, that 'in proportion as we descend in the scale of existence, the nervous system is less concentrated in a particular region of the body, and more equally distributed to all the parts.'

Fig. 2.



The ganglia of the caterpillar are extended from *a* to *b*, (Fig. 2.) and if we divide at *c*, there are six ganglia uninjured in each part. If we divide at *d*, we have four ganglia in one, and eight in the other part; and it will be found that the latter will survive the former, for the reason that there is a greater degree of the vital principle contained in it. The Reviewer thinks it necessary to prove the *will* a resident of the head only. But this does not necessarily follow, even if we allow that these motions depend upon volition. The arrangement of the nervous system in the caterpillar admits of an experiment, which leads us to think that each ganglion may be considered as a cerebral organ. It leads us also to conclude that the will is not a *unit* according to some metaphysicians—as, by the division as above, we can make two or more wills out of one insect,—but that it is the instant or ultimate determination of the prevailing instinct or faculty which is dependent on cerebral organization. In man, we may trace the will to the predominant organs, sometimes even to one, or two, and the decision is always characterized

* Kirby and Spence.

† Ib.

according to the nature of those organs. The brain of the caterpillar may be considered as divided into twelve parts, as we divide the human brain into thirty-six. These parts may admit of subdivision, but we are not prepared to make them, neither are we prepared to decide upon their relative importance. In the human subject the removal of one or two organs does not destroy all will, although it impairs it; and why should we look for a different result in an insect subjected to a similar operation? We do not state this as our settled belief, but as something probable, and worthy of consideration. We are persuaded, considering the form of insects, and the peculiar arrangement of their nervous system, that further investigation in this little world of beings, would lead to truths highly important to the science of Phrenology. We proceed to the consideration of the proposition,

IV. That Phrenologists admit no such faculty as Memory.

We approach the fabric of Ancient Metaphysics with feelings of mingled pleasure and regret. We once loved the science as it was, and derived from it a delight which almost leads us now to hold it in veneration. It is like the mansion house of our ancestors, that has been continued down from father to son for many generations. Its massy frame and ponderous finish are beauties by association. Every inscription coarsely cut upon its walls, is a record to be preserved, not for the value of its truth, but as a link to join the present to the past. The very webs which industrious spiders have woven from wall to ceiling, the dust that covers the spot where last our fathers sat and stood, remain unmoved, and are sacred by common consent. Each room, and each part of every room, remains still occupied by the furniture in ancient times allotted to it, and by our feelings we are taught to respect the relics of our sires as holy things and legacies not to be improved.

Thus stands the edifice of Ancient Metaphysics. For ages it has been the favorite retreat of men who were born to think, and each one has left there the record of his thoughts to guide those who should come after him in the paths of wisdom. There the philosophers of every nation have inscribed their doctrines upon the

walls, each correcting each, and truth denying all. Although they were at variance as to what constituted truth, there seems to have been a general conspiracy to perpetuate error. The first were honored for being first, and some of their successors were

————— ‘great critics,
 Profoundly skill’d in analytics;
 As well as many a philosopher,
 Who had read every text and gloss over.
 Whate’er the crabbed’st author hath,
 These understood b’ implicit faith:
 Whatever skeptic cou’d inquire for,
 For ev’ry why they had a wherefore;
 Their notions fitted things so well,
 That which was which, they could not tell;
 But oftentimes mistook the one
 For th’ other, as great clerks have done.
 They could reduce all things to acts,
 And knew their natures by abstracts;
 Where entity and quiddity,
 The ghosts of defunct bodies, fly;
 Where truth in person does appear,
 Like words congeal’d in northern air.
 They knew what’s what, and that’s as high
 As metaphysic wit can fly.’ *

Both originals and commentators, made great essays, but little progress: and both text and commentaries, with all their imperfections, have been preserved with profound respect and favor, as containing the philosophy of man.

There we see the names of Plato, Aristotle, Malebranche, Locke, Des Cartes, Reid, Kant, Stewart, and a host of others, subscribed to systems, which lead from uncultivated sense to thought so refined that mystery becomes perfection. There we have measured the heights and depths of Plato, scanned the transmigrations and numbers of Pythagoras, and studied the syllogisms of Aristotle. There have been immortalized ‘the atoms of Epicurus, the plenum and vacuum of Leucippus and Democritus, the water, of Thales, the infinite of Parmenides, the unity of

* Hudibras.

Musæus,' and the stoicism of Zeno and Diogenes. There we have seen the incredulity of Des Cartes; read the countless sections of Locke, admired the common sense of Reid, wearied ourselves in the accumulated mazes of Monboddoo, and more than once tried to imitate the rounded periods of Stewart, and to follow the suggestions of Brown. There we have demonstrated self-evident truths, by complicated means, and enjoyed the extacy of losing ourselves in the ten thousand labyrinths of thought, which ingenious authors of every age have contributed to this world of mystery. It was a mansion of bliss and glory to us; not for what it was, but for what it seemed to be. Complexity was an ornament in fashion, and abtruseness a merit; and to speak and write without being understood was to be absolutely great. Then, to behold the scenes of contest, the parade of words, and the formal elaboration of syllogisms and inferences! the excitement became intense. Positions were changed, modified, and demolished, and the ruins still preserved and respected. The world was reasoned out of being and back again, and man and brute, defined as many ways as there were champions in the controversy, outnumbering the stars of heaven; all crying victory, each for himself, and all with equal title to it. There, Fashion with her glittering wings, and Pride, and Prejudice with their lofty bearings and ponderous chains, the reigning Mysteriarchs of the world, stood absolute. Thousands knelt to their power, while they denounced their sway. This temple of science, with its heterogeneous contents, was and still is, held to be the oracle of mental philosophy. We once loved the glory of such a world of thought and speculation, and wondered at the stupidity of those who dared to treat it with neglect. Science of the mind! said we, with emphasis, thou noblest attainment of man, the perfection of his glory, why art thou not respected? All answered, but none convinced, until Gall and Spürzheim dispelled the clouds in which the disputations were enveloped, and truth shone forth in all its simplicity and irresistible splendor. We bowed, and acknowledged the rule of truth.

Since, then, our experience enables us to enjoy a feeling in common with the Reviewer, we cannot but respect his motives,

however we may lament the continued delusion of a false philosophy. We take nothing for granted, but what is proved by facts or analogical inference; and that philosophy which accounts, by a uniform and consistent method, for the greatest number of phenomena, we shall always prefer. This we conceive to be the philosophy of phrenology, and so far as the subjects embraced in any proposition are concerned, we shall endeavor to sustain this position.*

The following paragraph of the Reviewer implies absolute ignorance of the work which he pretends to criticise.

‘But how are we to account for the omission of so obvious and common a faculty as memory? Is the whole ground pre-occupied? Is there no more room in cerebrum or cerebellum? Cannot the advocates of this doctrine by a little different arrangement, by crowding or retrenching, by omitting *Veneration*, say, or *Conscientiousness*, find space for one more organ? If they can, we advise them to do so with all speed, and to call that organ Memory; for if there is anything certain about the human mind, it is the existence of such a faculty. Its operation is not to be explained by the combined functions of other powers. If any attribute of the mind is single and distinct, this is so.’

These questions have often been asked by those who are too wise to be instructed, and too infallible to be in the wrong. They judge of a science as by inspiration, without descending to the labor of ascertaining its true pretensions and principles. Had the Reviewer ever read the volumes of Spurzheim, he would never have asked these questions. If he has read them, we have a most remarkable instance, in his own person, which entirely controverts his position, *that there is certainty as to the existence of Memory*—because, there is no certainty of anything without evidence; and he has failed to supply the evidence which is necessary to prove that he has Memory himself. But as he appears willing to throw away *Conscientiousness* to accommodate *Memory*, it may be, though we do not assert it, that he is insensible to the influence of such a sentiment.

The phrenological analysis of Memory is the only one that affords any reasonable solution of the numerous mental phenomena

* We would not be understood to mean that the philosophy of Phrenology is complete, for we should be justly obnoxious to the charge of presumption; but more complete than any other system. It is still to be written out and perfected.

ascribed by philosophers to that faculty. Metaphysicians have written much upon Memory, and have accumulated many interesting facts, but they have succeeded only in giving names to causes without explaining them. Philosophers of the Peripatetic school held, that 'we may conceive to be formed within us, from the operation of the senses about sensible subjects, some impression (as it were) or picture in our original sensorium, being a relict of that motion caused within us by the external object; a relict which, when the external object is no longer present, remains, and is still preserved, being, as it were, its image; and which by being thus preserved becomes the cause of our having Memory.' Plato and his followers held to a similar theory, 'that when the form or type of things is imprinted on the mind by the organs of the senses, and so imprinted as not to be deleted by time, but preserved firm and lasting, its preservation is called memory.' The 'store-house,' 'dark cells,' 'marble,' 'free-stone,' and 'sand,' of Locke differ but little from these ancient theories. Although we are in duty bound to construe the language of Locke as entirely metaphorical, yet this charity answers no good purpose, inasmuch as this figurative language can have no meaning, in a philosophical point of view; and the same may be said of some of the ancient philosophers. Reid admits Memory to be an original faculty, but acknowledges his entire inability to account for it. Stewart says, 'that this faculty implies two things; a capacity of retaining knowledge, and a power of recalling it to our thoughts, when we have occasion to apply it to use.'

And thus it is with most definitions of Memory. Philosophers have defined it to be a fundamental faculty, and there their philosophy ends. They have enumerated a great variety of facts without deriving the least aid from their definition in explaining them, therefore, the phenomena of memory are inexplicable. There is no remedy but to remove the difficulty of their own creating—neither more nor less than to reject the premises which they have assumed. The difficulty is similar to that of the absent man who was suffering from the intense heat of his fire, he being very near it, called to his servant to remove it from the room. The servant, less

abstracted from common sense than his master, suggested the propriety of *his* removing from the fire. He had not thought of that !

If memory were a fundamental faculty it would retain every variety of knowledge without discrimination, which is contrary to fact. Some remember words, while others forget words and remember principles ; some remember events without the places in which they occurred, while others remember places, without events. Individuals have been known to forget their own language, even their own names, while they experienced no difficulty in recognizing persons, or in remembering principles. We know an individual who is remarkable for his memory of names, places, and persons, and yet he is destitute of ordinary discretion, and is placed under legal guardianship. Instances of a similar nature are numerous, but as the fact has not been questioned, it is not necessary for us to dwell upon them in detail. Assuming premises, then, which no one is disposed to doubt, that different persons vary as much in their memories as they do in other respects, we are led to the simple inquiry whether memory is, or is not, an original faculty of the mind. If we view memory as a fundamental faculty, we must regard it as the faculty of retention simply, the power of retaining knowledge as recognized by the mind. Memory would be to the mind what vision is to perception, a mere passive agent — to retain a knowledge of whatever has been the subject of consciousness, without discrimination. Memory would indeed be *single*, as the Reviewer supposes, and every person who could remember one thing, must with the same facility remember all things. The great exercise of this power of retention would enable an individual to retain the knowledge of all subjects, however complicated in their relations, and as a matter of course, the more simple truths which are not the result of reasoning. If we can remember a complicated argument, or a series of mathematical demonstrations, the remembrance of the most trivial occurrence in life would be inevitable, inasmuch as the greater power is more than the lesser. A vessel that will hold a gallon is capable of receiving a gill, and the fact of its greater capability is no proof against its lesser ; but on the contrary, it proves it to be a matter

of absolute certainty. This view of memory, which is in accordance with the old philosophy, is both contrary to reason and to fact. It explains nothing, and it has led to nothing, as many metaphysicians have confessed, and in our humble opinion it has been the cause of much discussion, which instead of aiding the mind, has confused and impaired it.

Phrenology defines memory to be a mode of activity of the faculties, and that there are as many memories as intellectual faculties. This analysis will afford a most beautiful explanation of the various phenomena of memory, which hitherto have been enveloped in obscurity. We can only refer the reader to the works of Spurzheim and Combe, for a further elucidation of this subject, and pass to the consideration of another branch of our author's speculations.

V. That Consciousness is insulted by phrenologists, because they do not admit it to be a faculty of the mind.

The Reviewer says,—

‘The phrenologist's account of what he is pleased to call the mind is unquestionably the most absurd theory that was ever contrived to support a beloved hypothesis. His classification of the mental powers is an insult to consciousness. The whole system is framed with exclusive reference to this world; for even “veneration” does not necessarily imply a Supreme Being as its object. It has no point of contact with the world of spirits, and renders many spiritual phenomena,—regeneration for example,—altogether inexplicable. That Reason, Faith, Consciousness, and the power of moral self-determination, should be left out of view in this system, as not coming within the experience of phrenologists, is not surprising,’ &c.

‘*Cogito, ergo sum,*’—was the starting point of Des Cartes' philosophy, and philosophers since his time have closed their eyes and folded their arms in contemplating man by referring to their own consciousness. This formal beginning of the philosophy of man by consciousness has been criticized and ridiculed as ‘a pitiful sophism,’ a *petitio principii*, and indeed it may be so considered; but as a part of the system which the Reviewer endeavors to defend, we do not see that it is liable to objection. Considering the first

act of consciousness to be the recognition of thought, there is no good reason why those who refer all our knowledge of the mind to consciousness, should not commence with the sophism of Des Cartes, '*Cogito, ergo sum.*'

But no one has ever been so successful in the investigation of mind by consciousness, as the famous Van Helmont, who 'after a long weariness of contemplation,' saw his own soul in a vision.

'But moreover,' says he, 'in the year 1610, after a long weariness of contemplation, that I might obtain some knowledge of my soul, by chance, sliding into a sleep, and being snatched out of the use of reason, I seemed to be in a hall dark enough; on my left hand was a table, whereon was a bottle, wherein was a little liquor, and the voice of the liquor said unto me, Wilt thou have honors and riches? I was amazed at the unwonted voice: I walked up and down, deliberating with myself what that might denote. Straightway on my right hand there was a chink in the wall, through which a certain light dazzled mine eyes, which made me unmindful of the liquor, voice, and former counsel; because I saw that which exceeded a cogitation expressible by word; that chink forthwith dispersed: I from thence returned sorrowful unto the bottle, took this bottle away with me: but I endeavored to taste down the liquor, and with much labor I opened the vial, and being smitten with horror, I awakened out of my sleep: but a great desire of knowing my soul remained, in which desire I breathed for twenty-three full years.

'At length in the year 1633, in the sorrowful or troublesome afflictions of fortunes, I saw my soul in a vision; but there was somewhat a more light in a human shape, the whole whereof was homogenous or simple in kind, actively seeing, being a spiritual, crystalline, and shining substance: but it was contained in another cloudy part, as it were the husk of itself; the which whether it gave forth a splendor from itself, I could scarce discern, by reason of the superlative lustre, or brightness of the crystalline spirit contained within it; yet that I observe, that the mark of the sexes was not but in the husk, but not in the crystal, that the crystal itself was made incomprehensible: and that not indeed by a nega-

tion or privation, but it represented a famous being which cannot be expressed by word. And it was said unto me, This is that which thou once sawest through the chink : but I intellectually saw those things in the soul, which if the eye should see, it should afterwards cease to see.'

In this example there is a most prominent 'point of contact with the world of spirits,' and the vision cannot but afford our author the highest gratification. Van Helmont was certainly in the right to say, that he 'was snatched out of the use of reason;' and were many of our modern writers to realize the true import of their arguments, they would doubtless arrive at the same conclusion. But we quote this author to show an interesting case of consciousness, as affording the world a true philosophy of the mind. Van Helmont was noted for his 'mental prayers to self for the knowledge of self, and his successors differ from him only in their want of courage to sustain an absurdity in all its bearings. He was not the first nor the last to study man, within the limits of an elbow-chair; and however differently modified the doctrine may be in the hands of different authors, it remains essentially the same. It is that we acquire all our knowledge of mental operations by consciousness; that a man without seeing the world, may attain a knowledge of his kind, by studying himself; that self is a specimen of all others, and that by knowing one's self all others may be known. This has been the prevailing philosophy, and therefore it is, that systems derived from this source have no agreement, no certainty, no utility.

Our consciousness, *e.g.* leads us to regard music as a science highly calculated to promote the happiness and refinement of society. Our neighbor, with equal claims to good sense, is conscious of no delight or gratification in hearing it. It is even disagreeable to him, and our estimation of its value not only surprises him, but even begets a sort of contempt for our opinion. On the other hand, indifference to music, and apparent dullness of apprehension in regard to it, is indicative, in our view, of an ill-nature, an unamiable spirit, or, in the language of Shakspeare,

‘The man that hath no music in himself,
 Nor is not moved with concord of sweet sounds,
 Is fit for treasons, stratagems, and spoils;
 The motions of his spirit are dull as night,
 And his affections dark as Erebus:
 Let no such man be trusted.’

We will suppose that each were to write a philosophy of music according to consciousness, what would be the result? The question has been already answered,—both would write according to consciousness, and both would be wrong.

An individual with great intellectual endowments by nature, is conscious of a greater variety of thought, reasoning and relation, than one whose natural talents are less and more circumscribed. The former comprehends all propositions with ease, and is conscious of the existence of a power to show their truth, or fallacy; but the latter is only conscious of his inability to solve a difficult problem, or of a doubt as to its meaning *really* anything, because of his want of the necessary power of discernment.

One has a perfect consciousness of the pleasure derived from the beauty of colors, of a power to combine them with effect upon the canvass; but another is totally unconscious of any pleasure derived from colors either separate or combined; he cannot discriminate between red and blue; and as to any particular harmony, according to the principles of the art of painting, or good taste, he is quite at a loss to comprehend such a wild and ungrounded theory.

One is conscious of the delight which the reading of poetry and works of highly wrought fiction affords; while another is not only insensible to the flights of the imagination, but, from a sense of imperative duty, condemns the indulgence in them with evident indications of horror and disapprobation. He has no consciousness of this lively trait of human nature, and he would compel mankind to adopt the standard which is within himself.

Some are conscious of the existence of a power to originate and to enjoy the sallies of wit, while others have no conception of the pleasure of the humorous, or the delight of an unaffected smile. Conceive, for a moment what must have been the consciousness of Shaks-

peare, compared with the consciousness of *Lord Timothy Dexter!** or compared with his equal in another department of intellectual power, Sir Isaac Newton. The former was conscious of the varied conceptions of a lively imagination, and the latter of a disposition only to observe and philosophize. The former, now mounted on the wings of fancy and kept company with ærial spirits, and unseemly ghosts and witches, and then descended with an unerring sight to trace out and mark the crimes and follies of man. The latter, guided by rules and axioms, progressing step by step, and weighing with scrupulous nicety the laws of matter as developed in the passing phenomena of the natural world, was more conscious of the existence of a calculating power, the power of logic, than of a power to represent the world by the figures of speech, or to teach the knowledge of man by the aid of the drama.

Some are conscious of a spirit of benevolence within them, a disposition to do acts of kindness to their fellow-men; others are bound up in self, and have no consciousness of the existence of any power to perform an act that has no reference to their own good. They despise men who cannot live by their own exertions, and they are above giving to others what they do not ask for themselves. The principle of benevolence is neither realized nor practised. Some are conscious of strong passions and are strangers to the mild and amiable virtues of our nature; while others, those who reason without feeling, and feel without passion, are conscious only of those sources of action which originate in the perfect quietude of the soul. All being peace within, the necessity of contention is denied and all tumult avoided. Their consciousness affords them no evidence that the passions necessarily exist, or, that others are naturally subjected to them. Consciousness being the source of knowledge, self becomes the standard of man.

Not only is consciousness different in different persons, but in the same individual. There is a consciousness peculiar to youth, to manhood, and to old age. There is consciousness experienced

* This personage was a *self-styled* lord, who accumulated a fortune by his lucky blunders. His intellect was small, but his Self-Esteem led him to assume all the airs of rank and greatness.

in disease different from that in health. Our consciousness in dreams is not only at variance with the consciousness of our waking hours, but is multiplied and complicated, leading to conclusions in contradiction to each other.

The *monomaniac* is said to have a *double* consciousness : one being false in consequence of disease, the other true, as manifested by those organs of the brain which are sound. We have seen a man by the name of Page, now residing in Baltimore, who considers himself a Prophet, and superior to any being who has been upon the earth for many centuries. He predicts that the world will come to an end in 1836, and that after that period the earth and heavenly bodies will be reversed in their revolutions, and that the sun will rise in the West, and set in the East. He says that he has five additional *senses* of divine origin, and that he is Infallibility itself. Yet, on every other subject, this individual converses with good judgment, and without indicating any mental aberration whatever.

These illustrations might be continued ; but enough has been said to show, in part, the absurdity of relying upon consciousness, alone, for a true philosophy of the mind. Our position may be further explained by reference to the first part of this article, where we consider the origin of the peculiarities of different systems of philosophy.

Prof. Stewart very justly admits the importance of cultivating ‘ all the various principles of our nature, both speculative and active, in such a manner as to bring them to the greatest perfection of which they are susceptible ;’ and yet he would have us ‘ proceed no farther than facts for which we have the evidence of our own consciousness, such as, the various laws which regulate the association of ideas, or the dependence of memory on that effort of the mind which we call attention,’ &c. He thinks that by limiting ourselves to such facts, the science of mind may become as certain as any science of physics.

Abercrombie says, ‘ The only field in which the mental philosopher can pursue his researches with perfect confidence is his own mind.’ But, aware of the difficulty of this course of study, and

without modifying his first position, he recommends 'an extensive collection of facts, illustrating the phenomena of mind in various individuals, and under a variety of circumstances.'

Thus Consciousness has been resorted to, by metaphysical writers, as a faculty of the mind, affording evidence to prove the nature and extent of mental operations, while at the same time they have formally predicated their systems upon the basis of experience and observation. To place implicit confidence in conclusions derived from consciousness, independent of external facts and circumstances, is to disregard the importance of universal observation; and hence it is that confusion has been the result of an imperfect mode of investigation.

'He who attends to what passes in his own mind,' says an old author, 'when he perceives, remembers, reasons, or wills, must know by consciousness what these operations are, and be capable of forming very accurate notions of them as connected with their objects; and he who does not attend to what passes in his own mind, will never acquire any notions of them, though he were to read all that has been written upon the subject, from the days of Pythagoras to those of Dr. Reid.'

There is truth in this proposition, but not the truth intended; for one might study his own mind, and read all the metaphysical writers from Plato to Abercrombie, without being able to give an intelligible solution of a single mental phenomenon.

To know one'sself is a task attended with no small difficulty; and to suppose that we can attain self-knowledge by mere consciousness, is an error as great as it is fatal. The difficulty of this study was acknowledged by the ancients; in fact, the attainment of *self-knowledge* was regarded by them as worthy the attention of the gods, requiring the highest exertion of the soul. '*Know thyself*,' was a precept of Thales, the Milesian, who said, '*That for a man to know himself is the hardest thing in the world.*' It acquired the authority of a divine oracle, and was written in gold letters over the door of the temple of Apollo, at Delphos. Indeed, Apollo was supposed to be its author, 'because,' as Cicero says, 'it hath such

a weight of sense and wisdom in it as appears too great to be attributed to any man.'

Lord Bacon, Locke and Reid refer all knowledge to experience; and the latter considers consciousness to be 'an operation of the understanding of its own kind, and cannot be logically defined,' but says, 'that all we can know of the mind must be derived from a careful observation of its operations in ourselves.'

Thus it has been even to the present day, a half-admission of the only true mode of investigating the phenomena of mind. 'To me,' says Brown 'I must confess, it appears that this attempt to double, as it were, our various feelings, by making them not to constitute our consciousness, but to be the objects of it, as of a distinct intellectual power, is not a faithful statement of the phenomena of the mind, but is founded partly on a confusion of thought, and still more on the confusion of language.'

Without adverting further to the conflicting opinions of philosophers, we may define consciousness to be the realization or recognition of the existence of our present thoughts, desires, feelings, sensations, and 'all those states or affections of mind, in which the phenomena of mind consist.' Or, as Spurzheim defines it, 'Consciousness is a general term, and is an effect of the activity of one or several mental faculties. It is identic with mind, and exists in all its operations; in perception, attention, association, sympathy, antipathy, pleasure, pain, in affections and passions.' It is not a principle independent of, and different from, the faculties and propensities, but a part of their nature, and peculiar to the sentient being. Consciousness is not peculiar to man. Animals, whether we regard them as creatures of instinct or reason, are as conscious of the existence of their perceptions and volitions as man can be of his. The consciousness of man, therefore, is according to the degree of his intellectual, moral, and animal nature. It may be limited, as in the idiot, or extended, as in the moral or intellectual philosopher. It adds nothing to reason; it changes none of our affections, and may be regarded as the mind's perception of the existence of itself, according to the extent of its own powers and pecu-

liarities. There may be a consciousness peculiar to a separate faculty, or a consciousness resulting from a combination of faculties. And it must be obvious to every reflecting mind, that, as the faculties vary in different individuals, consciousness sustains as many systems of mental philosophy, as there are original minds.

By a knowledge of phrenology our faculties and propensities may be analyzed, and the consciousness of each understood and appreciated according to its own nature. The consciousness of large Self-Esteem, combined with deficient Causality and Comparison, is to be mistrusted, as being a flattering counsellor. The consciousness of large Destructiveness and Combativeness, with deficient Benevolence and Conscientiousness, should be regarded as that of an animal, requiring the strictest and most careful discipline. The consciousness of large Marvellousness, should be admitted in evidence with the utmost caution, as calculated to lead us to the admission of doctrines not founded in truth ; and on the other hand, the consciousness of deficient Veneration and Marvellousness requires the utmost exertion of our reason to keep us from the dreary abyss of skepticism. And thus we might exemplify our position by numerous examples—but our limits forbid. Enough has been said to show that consciousness, proper, being capable of every variety of evidence, is, of itself, capable of proving nothing in philosophy. But, regarded in its true character — it being inseparable from the mind — it amounts only to a term, significant of no special faculty, but an essential attribute of all the faculties.

But, says the Reviewer,

‘We maintain that Consciousness, or the faculty of self-intuition, cannot, from its very nature, be exercised by a material organ. In consciousness we perceive *self*, with all its spiritual powers, to be an absolute, indivisible one ; and of this we are more certain than we can be of anything else. But matter is made up of separate *parts*, ergo, matter cannot be conscious. Granting even (what is absurd) that a particle of matter could be *self*-conscious, it cannot be conscious of other particles.’

In this position the Reviewer is indeed profound ; and if he

can perceive *self*, with *all* its spiritual powers, as being absolutely and indivisibly *one*, *independent of*, and *without reference to organization*, he is *mysteriously* profound. But of this he is 'more certain than of anything else,' and it is a subject of regret with us that our consciousness is incapable of a response. With due deference to the proposition of the Reviewer, we would state that it is no more true in relation to man than to the lower animals. A horse perceives self, with all his limited powers, to be an absolute indivisible one; and of this *he* is 'more certain than of anything else;' for if you mount him, conscious of his existence and the results of discipline, he carries you; if you strike him, he feels and perceives that it is a blow upon his *indivisible self*, and starts; but if you strike another horse, he remains motionless, and is not conscious of any blow; which proves his perception of self as being an absolute indivisible one, and of this he is 'more certain than of anything else,' because he discovers no indication of fear, as to self, when the other horse receives the blow. But the whole argument is totally irrelevant to our subject, as it has entire reference to doctrines not embraced by phrenologists. No phrenologist, to our knowledge, ever spoke of the consciousness '*of matter*,' or of the '*particles of matter*;' and to answer any speculation intended for *materialists*, is foreign to our inclination and purpose.

The following question is another error of a similar character. He asks,

'On the supposition that the brain is the sole organ of the mind, how are we to account for our memory of the past and our consciousness of continued identity, since every particle of the body passes off, according to some physiologists, once in five years, or, according to others, once in three?'

This reminds us of the argument predicated upon Sir John Cutler's stockings. 'Sir John had a pair of black worsted stockings, which his maid darned so often with silk, that they became at last a pair of silk stockings,'* &c.

The error is, in confounding the identity of mind or person

* Martinus Scriblerus.

with the *identity of matter* ; and who ever heard of the latter in the science of metaphysics ? The *identity of matter* might be a convenient term for merchants, who wish to designate an article which had been seen before, but it has no meaning in phrenology, or in any other system of philosophy. To refute such reasoning would be raising it to a dignity not its own.

The mind alone is conscious ; and the mind, with its consciousness, is manifested by means of the brain. We have two eyes, two ears, yet hearing and seeing are single. And it is as easy to comprehend the mind as an absolute and indivisible one, being manifested by different organs, as to understand its *oneness*, when it is acknowledged to be composed of various spiritual powers, independent of organization.

The Reviewer asks for ‘ *a special organ for thinking,*’ and in explaining why the body suffers when the mind ‘ has been long and intensely engaged,’ he speaks of a ‘ duplicity and antagonism of the mind and body ;’ of ‘ the whole vitality of the system ; being as it were, absorbed in the mind,’ &c. ; but not understanding the import of his request and remarks, or if we did understand them, being ignorant of their application, we can say nothing in answer.

We have thus noticed, at some length, the principal questions suggested by the article in the Examiner. We might have said less, and there is ample ground to say more. Much that is contained in the article is so obviously fallacious, that it would seem almost useless labor to notice it at all, were it not that it is calculated to mislead the uninformed. We have therefore written with some reference to this class of inquirers.

There are many writers who boldly enter into controversy without knowledge, and they seldom fail to interest a sufficient number of readers, distinguished for the same deficiency, to be their judges and adherents. Although the writings of Spurzheim, of themselves, amply refute all charges that have ever been produced against Phrenology, yet, but few of this class of persons can be induced to read them. They have too much Combativeness to be pleased with the *regularity* of a perfect system ; and they continue in ignorance, perhaps, from a latent fear that a proper understanding of

the subject may supercede the necessity of discussion. They delight in war — a war of words — a philosophy of *fight*, instead of a philosophy of reason ; and since it is a principle admitted to exist in human nature, it is our duty to provide for it. The Reviewer, in asserting that Phrenologists have failed to produce any physiological facts in support of their science, and that the system will never find much favor with philosophers and scientific men ; — ‘ that the coincidence between brain and character adduced in support of Phrenology, do not even outweigh the exceptions ;’ that Phrenology is a philosophy which appeals simply and solely to the senses, and is therefore suited to the humblest capacity and the coarsest taste ; a philosophy which lays out human nature in the form of a map, so that every man, woman, or child, who will take the trouble to spend a few hours over that map, and learn the names of its different provinces, with their respective locations, may rise up a philosopher, completely versed in the noble science of man,’ — added to his other gross errors in point of fact, is fairly entitled to an honorable place in this class of zealous disputants. In thus ranking the Reviewer, we entertain no feelings prejudicial to his character for honesty, as his words are fully sustained by his performance. ‘ As a man thinketh, so is he ;’ and the Reviewer, true to the doctrine of the Proverb, believing but few hours necessary to investigate a science which is the result of many years’ experience and observation, took good care that his labor should not exceed the exact importance of the subject, according to his own estimation. Indeed, we cannot but admire his honesty, although we are somewhat at a loss to account for his ignorance.

A tolerable knowledge of the history of the science is sufficient to convince any serious inquirer, that it is based upon facts, and that many of the most scientific men are phrenologists. — We do not mean to say, that all agree with respect to the details, or, that all are willing to be called phrenologists ; but that most scientific men agree in acknowledging and adopting the fundamental principles of the science.

The Reviewer in quoting Lord Bacon, and holding the opin-

ions of others in contempt, adds but another instance of self-complacency and assumption. This kind of affectation is an evil of no small magnitude among us. It is to science, what foppery is to fashion, rather a deformity than an ornament. There are many who walk in the highest circles of society and affect to be informed on all literary subjects, and yet never express opinions but in accordance with those sanctioned by others. They have no decided opinion of their own, yet no class is more guilty of dogmatism. They generally get their belief from individuals, who may have become distinguished in some particular branch of science, and who, because they are acknowledged to be well versed in one subject, regard themselves competent judges on all subjects.

No man should be regarded as an authority worth quoting, unless he has given the subject *in question* a serious examination. The fact that he is a great Mathematician, or Chemist, or Physician, or Lawyer, or Divine, is of no consequence independent of the consideration just stated. He may be one of these, in the estimation of the world, and yet be perfectly ignorant of the science of phrenology; and therefore, his opinion upon the subject is not only premature but valueless.

When we look back on past ages and see how little philosophers and philanthropists have accomplished for the melioration of man; when we read attentively the history of human nature from the Christian era down to the 19th century, and mark the progress of mental philosophy and religion, and the poverty of their results; and on the other hand, when we see how perfectly the laws of the natural world have been solved, and with what success the science of Zoology has been pursued, and the animal kingdom improved,—we are led to the conclusion, humiliating as it is, that man has lived in ignorance only of himself and of those means by which the improvement of his condition is to be secured. Mental philosophy has been a system of theoretical speculation, which has neither reached the wants, nor remedied the defects of human society. It has neither increased the happiness of man, nor diminished the sources of human suffering. Notwithstanding the numerous changes and modifications to which it has been subjected, and the deep

learning and logical acumen which its professors have called to its aid, they can boast of having added but little to self-knowledge, or of having excelled the ancients in developing the true causes of human perfection. The question, therefore, whether Phrenology be true or false, is one of serious import. It is a question of sublime magnitude, one that involves the welfare of a world, and it should receive attention commensurate to its importance. The time has come when a new philosophy is necessary. The condition of man requires it. We believe 'that in Christianity all truths are contained; but these eternal truths may, and ought, to be approached, disengaged, and illustrated by philosophy.'*

Phrenology has presented a philosophy based upon facts, and all who are capable of investigating mental phenomena and appreciating the testimony afforded by history,—all who are capable of reflecting and of realizing their responsibility to God and their relations to the world,—and all, who would be counted as friends to the improvement, happiness and perfection of their species, are called upon to examine it with patience, candor, and justice.

NOTE.

Since writing the foregoing article we have seen in the March number of the New-England Magazine, a letter to the Editor of that work from the author of the article which we have noticed. He signs his letter, F. H. H. To say nothing of the *egotism* displayed in assigning his motives for assailing phrenology, and in placing himself in the transcendental regions of philosophy, that he may be distinguished from the '*would-be philosopher of the day*,' and the '*half-reasoning phrenologist*,' we shall add another specimen of his refined method of philosophizing.

'With regard to the paper in the Examiner,' says he, 'although I am convinced that my *reasons* against phrenology are unanswerable. [indeed!] I have no doubt that the *reasoning*, [how are we to know his '*reasons*' but from his '*reasoning*,'] there used, may be answered, for there is no reasoning that may not be. I have no doubt that apparent inaccuracies and discrepancies may be found in some of my statements; for, though I examined slowly, I wrote rapidly, and perhaps always did not express myself with sufficient clearness. But this thought does not disturb me; for I well know, that had I written ever so care-

* Cousin.

fully, and reasoned ever so powerfully, I should not have convinced a single phrenologist. [‘Convinced him of what? Can ‘*ever so powerful reasoning*’ convince a rational man that there is truth in absurdity?] No reasoning ever yet converted any one to a belief to which he was not already predisposed. [How can a person be ‘*predisposed*’ to believe in a fact of which he is ignorant, and of which he may be subsequently informed?]

Truth is not the product of reasoning: [who ever said that it was?] if it were, it might be manufactured to any amount by the mechanical operation of logic. [Who can conceive of a ‘*mechanical operation of logic?*’] It is not *made* by argument, [Who has ever said that it is?] it is a pure inspiration of the universal reason; no chain of sequences can bind it, no sophistry can loose it. [What an excellent answer this would have been to the question of Pilate!] I hold, therefore, all argumentation, which is used for any other purpose than that of illustrating truths already discovered, as worse than useless. [Of what use can ‘*argumentation*’ be in ‘*illustrating truths already discovered?*’] Facts may be of use, but when ‘*argumentation*’ is resorted to, it is positive evidence that the truth is not yet discovered, at least by those to whom the argument is addressed.]

To prove, to demonstrate, is not to *produce* truth; [true, but it is to *illustrate* truth,] neither is failure in demonstrating an evidence of falsehood. In the *Phædo* of Plato, there are many inconclusive arguments; and yet no believer, I presume, ever read that book without feeling his faith in immortality confirmed.’ [Why should a *believer* feel otherwise? F. H. H. may be assured that no believer in Phrenology ever read his article in the *Examiner* without feeling his faith ‘in the science, confirmed.’ *The Phædo of Plato, and my Article!*]

Again: But man is something more than an animal of a higher or the highest order; he is likewise an angelic nature, and a son of God. [Do Phrenologists dispute it?] There belong to the spirit that dwells in him, whole provinces and large kingdoms, [!] which have nothing to do with his animal nature, or with the faculties that connect him with the outward world. To any knowledge or adequate conception of these regions, let not phrenology aspire. [Indeed! ‘The whole mystery,’ says an able writer* ‘seems to be this; the mind sometimes turns its eye on the material world, surveys its operations, learns its laws, and make its powers subservient to its purposes; and sometimes it looks inward on itself, learns its own powers, and surveys the agreement, or discrepancy among its own ideas. The former of these

* Rev. Leonard Withington, *Christian Spectator*, No. IV. vol. VI.

operations, Coleridge would attribute to the understanding, the latter to reason; but with about as much propriety as a one-eyed man would call his eye two faculties, because it was sometimes turned towards the heavens, and sometimes towards the earth, — sometimes surveyed the land, and sometimes the sea.']

While, therefore, considered simply as an account of the animal man, this doctrine seems to me not only harmless, but plausible; [what consistency and condescension!] considered as the whole account of the whole man, I cannot regard it but as foolish and impious. [Modest rebuke!] Let its disciples confine themselves to the cavities and protuberances, and winding passages of the brain; let them expound the true doctrine of the nerves, and tell whence they come and whither they go; let them unfold the sublime philosophy of skulls, and explain how they should be shaped, and handled, and construed; let them do this, and no one will listen more reverentially than myself. [With a *spiritual* mind, or *animal* mind?] But when, from this stand, they undertake to reason concerning the mind, the *spiritual mind*, — I cannot refrain from expressing my conviction, they have mistaken their way, and that what they are seeking [which is truth,] is not to be found in this direction or in other path of physical inquiry.'

If our readers will turn to No. XXIX of the *Christian Examiner*, 1833, they will find an article on the writings and character of Emmanuel Swedenborg. It was written, as we are informed, by F. H. H. In that he sanctions *mysticism*, and divides it into three classes, viz. 'the *contemplative*,' 'the *constructive*,' and 'the *practical*.' There is some consistency in this. An author who avowedly deals in mysticism, may be called a *mystic* as by his own consent, and be treated with more or less indulgence according to the degree of darkness in which he pretends to be enveloped; whether he be dark, more dark, or most dark. Our author may be placed in the superlative degree; and we trust he will thank us for the compliment.

We recognize a writer of the same school, in an article on Coleridge, contained in the April number of the *North American Review*.

Although there is much to admire in the writings of Coleridge, yet there is much of what may be called *dignified nonsense*. That this author should admire what is mysterious, is not a matter of surprise; for mystic attracts mystic, as fog attracts fog. What we should condemn in Coleridge as *affected abstruseness*, he would exalt to the sublime; and what we should call *travelling in the dark clouds of midnight*, he would denominate the *heavy tread upon solid ground at noon-day*. There is not so much difficulty in understanding what Coleridge means, as the use of what he means. He contributed but

little to the *real advance* of philosophy, and the same may be said of all those who deal in mysticism. This class of writers 'put the sun and moon into their pockets,' and then complain that although they see others, others do not see them. Had Coleridge attempted less, he would have accomplished more; and had he studied man instead of following the blind sentiments of his own *peculiar self*, he would have adapted himself to his real condition, and have improved the condition of others. The gentle rebuke of Sir James Mackintosh, which was addressed to Coleridge, may, with profit, be extended to his readers.

It has been well remarked by a writer in the *Christian Spectator*,* 'that metaphysical speculations seem to be returning to their former mysticism. Either we are beginning to assume the prejudices of old men, or our minds are too feeble to keep pace with the sublime progress of the science, or our efforts have been unfortunate, and our books ill-selected, or the genius of cranioscopy laid her hand on our ill-fated skull, at the natal hour, and crushed in the protuberance assigned to these investigations: either some of these causes have existed, or all of them, or else metaphysical investigation is returning to the most idle mysticism that ever amused and deluded the human mind. The only wonder about the business is, that systems so vague, so dark, so recondite, so puzzling, and so unprofitable, should detain the attention and conquer the reason of beings, who profess to be descended from that Adam who gave names to beasts, bird, and fowl, and not to the shadows of a visionary imagination.'

This is the result of *uncontrolled Ideality and Marvellousness*. Phrenology alone can arrest the evil. But we despair of ever reaching the mind of F. H. H., by any human means, as he makes it a point to read no replies, 'for fear of being tempted into controversy.' He can teach, but will not be taught. Consummate wisdom!

* No. IV. Vol. VI. Article on the 'Present state of Metaphysics, and Coleridge.' By Mr. Withington, of Newbury, Mass. We recommend it to our readers, and ask them to compare its plain and practical good sense with the *mysticism* and unsustained adulation of the article contained in the *North American Review*, alluded to before.

ARTICLE II.

Anatomical Report on the Skull of Spurzheim, read before the Boston Phrenological Society, by NATHANIEL B. SHURTLIFF, M.D.

HAVING been appointed a committee on the skull of our lamented friend, Spurzheim — the anatomist who, by dissecting the brain, first displayed to the eye its fibrous and ganglionic structure, and demonstrated the direction and connection of its filaments—the discoverer of many of the relations existing between the spiritual faculties of the mind, and their material cerebral instruments—the philosopher who, by the greatness of his own mind, raised craniology, and physiognomy to the ethical science, Phrenology,—I offer with diffidence the following Report, fearing that it is unworthy of its subject, and less minute and extended than may have been wished.

Deeming the mental characteristics of this distinguished man well known, I shall not advert to them, but shall confine myself as strictly as possible to an anatomical description of such parts of the cranium, as seem to have a phrenological bearing, or, in other words, which immediately enclose the encephalon. To others, more experienced in cranioscopical taxis, is left the opportunity of determining the exact form and size of the development of the different individual portions of the cerebral mass. Adhering to the phrenological motto '*res non verba quæso*,' I shall merely state facts, and leave others to draw their own conclusions.

It is well known that the skull of Dr. Spurzheim received the funeral honors which were bestowed upon his other remains, and that it was the intention of his Boston friends to deposite it in the grave with his body.* This last intention was never carried into

* Dr. S. lies buried on the most conspicuous mound in the cemetery at Mount Auburn, under a beautiful monument, exquisitely carved from a block

effect, it having been subsequently understood that such interment would violate an often expressed wish of Dr. Spurzheim. On this subject his friend, George Combe, Esq., of Edinburgh, the distinguished writer on phrenology, says in a letter to Mr. Capen, 'The whole conduct of your countrymen towards him (Dr. Spurzheim,) was excellent. In one particular only, would a knowledge of Dr. Spurzheim's own wish have made an alteration. I have often heard him say, *'when I die, I hope they will not bury my skull: it will prove what my dispositions were, and afford the best answer to my calumniators.'* Dr. Gall expressed a similar wish in regard to his own, when he returned to Cuvier a skull which that great naturalist had sent with the message 'that it appeared to him to confirm his (Gall's) doctrine of the physiology of the brain.' 'Take back that skull,' said the then dying philosopher to Cuvier's messenger, 'and tell Cuvier that there is now only ONE wanting, to complete my collection: it is MY OWN; it will soon be there as a powerful testimony of the truth of my doctrine.'

Dr. Spurzheim's skull was therefore prepared and bleached by Dr. Lewis and myself, and is now preserved with the brain in a fire-proof safe, in the society's hall, equally free to be seen by the friends and 'calumniators' of the great spirit of its late possessor. This skull is much larger than the average of large crania, as may be inferred by the immense weight of the brain which it contained,* and much the greatest portion of which was situated in the part of the cavity of the cranium, anterior to the auditory orifices. Indeed, with the exception of two or three, it is the largest skull that I have ever seen.

of Italian marble, by European artists, in imitation of the tomb of the Scipios. The word 'SPURZHEIM,' cut upon the stone in Roman capitals, though a simple inscription, speaks more eloquently than could any labored epitaph. This beautiful monument is enclosed by an elliptical iron fence, and was erected by the munificence of Wm. Sturgis, Esq., of this city.

* Dr. S. died on the 10th of Nov. 1832. His brain was weighed on the 12th. Being present, I took an account of the weight, which, after deducting for that of the napkins, &c., which were used, was exactly 3 pounds 7 ounces and 1 dram, or 55½ ounces avoirdupoise. The brain was previously deprived of its liquors, and divested of the dura-mater.

74 *Anatomical Report on the Skull of Spurzheim.*

That there may be no misunderstanding, with regard to the dimensions of the skull, I have taken the measurements, in inches, and as far as practicable, from anatomical points.

Greatest circumference (measured horizontally).....	22 1-4
..... length from occipital protuberance to the frontal sinuses.....	7 1-2
Distance from occipital protuberance to the naso-frontal ar- ticulation, measured over the head.....	13 6-10
..... naso-frontal articulation to superior angle of the occipital bone.....	7 1-10
..... naso-frontal articulation to the anterior ex- tremity of the sagittal suture.....	4 6-10
..... occipital protuberance to superior angle of the occipital bone.....	2 8-10
..... occipital protuberance to anterior extremity of the sagittal suture.....	6 1-2
Greatest breadth of skull measured between the temporal bones 1 inch above the orifices of the ears.....	6 1-4
Distance from mastoid process to mastoid process.....	5 6-10
..... ear to ear.....	4 1-2
..... .. naso-frontal articulation	4 1-2
..... .. frontal sinuses	4 8-10
..... .. anterior extremity of sagittal suture.....	5 1-2
..... .. summit of head.....	5 6-10
..... .. superior angle of occipital bone.....	4 8-10
..... .. occipital protuberance.....	4 1-4
..... .. ear over the summit of the skull in a vertical direction.....	14
..... .. around the lower part of the fore- head.....	11 1-2
..... .. back of the skull at the occipital protuberance.....	9 3-4
..... parietal protuberance to parietal protuberance.....	5 1-2
..... between the anterior inferior angles of the parietal bones	5 2-10
Camper's* facial angle.....	61 degrees.

* Notwithstanding the prominence of the forehead, this measurement is taken correctly. Two causes combine to make this angle small in the head of Dr. Spurzheim: 1st, the great length of the face; and 2d, the extra high situation of the ear. This is another fact which goes against the intellectual angle of Camper.

The other measurements agree with the following, published in No. XXXIX of the Edinburgh Phrenological Journal, taken from the cast which the society sent to Edinburgh.

'Greatest circumference of head (measured horizontally over Individuality, Constructiveness, Destructiveness, and Philoprogenitiveness,).....22 1-4

From occipital spine to Individuality, over the top of the head.....13 1-2

..... ear to ear, vertically over the top of the head.....13 3-4

..... Philoprogenitiveness to Individuality, in a straight line.....7 6-10

..... Concentrativeness to Comparison 6 1-2

..... ear to Philoprogenitiveness4 1-4

..... .. Individuality 4 7-8

..... .. Benevolence5 1-2

..... .. Firmness5 1-2

..... Destructiveness to Destructiveness.....6 1-4

..... Secretiveness to Secretiveness.....6 1-10

..... Cautiousness to Cautiousness.....5 1-4

..... Ideality to Ideality.....4 7-8

..... Acquisitiveness to Acquisitiveness.....5 1-4

..... Constructiveness to Constructiveness 4 7-8

..... Mastoid process to Mastoid process.....5 1-4'

The discrepancies between these two lists of measurements are of very little importance. All the measurements in that from the skull were taken several times, and found to agree with others that I took from a cast in my collection, which I made at the same time, and in the same mould, with those sent to Europe. The errors are therefore in the list of our Edinburgh friends, and may have arisen from the accidental moving of their callipers.

The texture of the skull is fine, and the substance compact, with little or no diploë. Externally, the sutures are very distinct ; but internally they are so obliterated as to be scarcely visible. I have never seen the interior of a cranium, where the digital impressions, adapted to the exterior of the convolutions of the brain, are so well marked ; on this account a mould, particularly of the anterior region, would give as good an idea of the form and size of the convolutions, as the best possible cast of the brain. Such a mould

would also give a correct idea of the form of the encephalon. I have in my collection a cast of the brain, which I took soon after Dr. Spurzheim's decease ; and which is the best that could be obtained ; nevertheless, on account of its flattened appearance and indistinctness, I have never multiplied it. Moulds representing the form of the cavity of the cranium, or rather the contents of this cavity, have been taken ; one from the base, and another from the vault. These, however, have been joined together by an unskillful artist, more intent upon getting money than giving a true representation of the interior of the skull. The result, therefore, is that the cast which we possess in the cabinet, and which has been circulated, is from half of an inch to an inch higher than the cavity of which it pretends to be a mould. By the aid of casts which I took at the same time, together with the skull itself, and the original incorrect cast (which I had the good fortune to obtain,) I have been able, in a great degree, to rectify the mistake. Nevertheless, I would not have this considered otherwise than an approximation to the truth. If a cast of this cavity is really needed, another should be taken, and that by responsible workmen, that accuracy, so essential to phrenological observation, may be secured.

In point of thickness, with a few exceptions, which will be mentioned as each bone is considered, this skull does not vary from the standard measure. As is the case in ninety-nine out of one hundred skulls, the orbitar portion of the frontal bone, the squamous of the temporal, and the inferior of the occipital, are so thin as to be translucent, and the other portions thick and opaque.

Of the frontal bone, the superior lateral portions on both sides, lying against the coronal suture, above the temporal ridges, and moulded on the organs of Marvellousness, and Imitation, are somewhat thicker than the other parts of the same bone ; while the portion lying directly between the above-mentioned parts and over the organs of Benevolence, is of the usual standard thickness. Those portions called the frontal eminences, particularly the innermost parts which form the wall before the organs of Causality, and also the portions over the organ of Tune, on both sides of the head, notwithstanding the ridge passing over the latter, are, from the

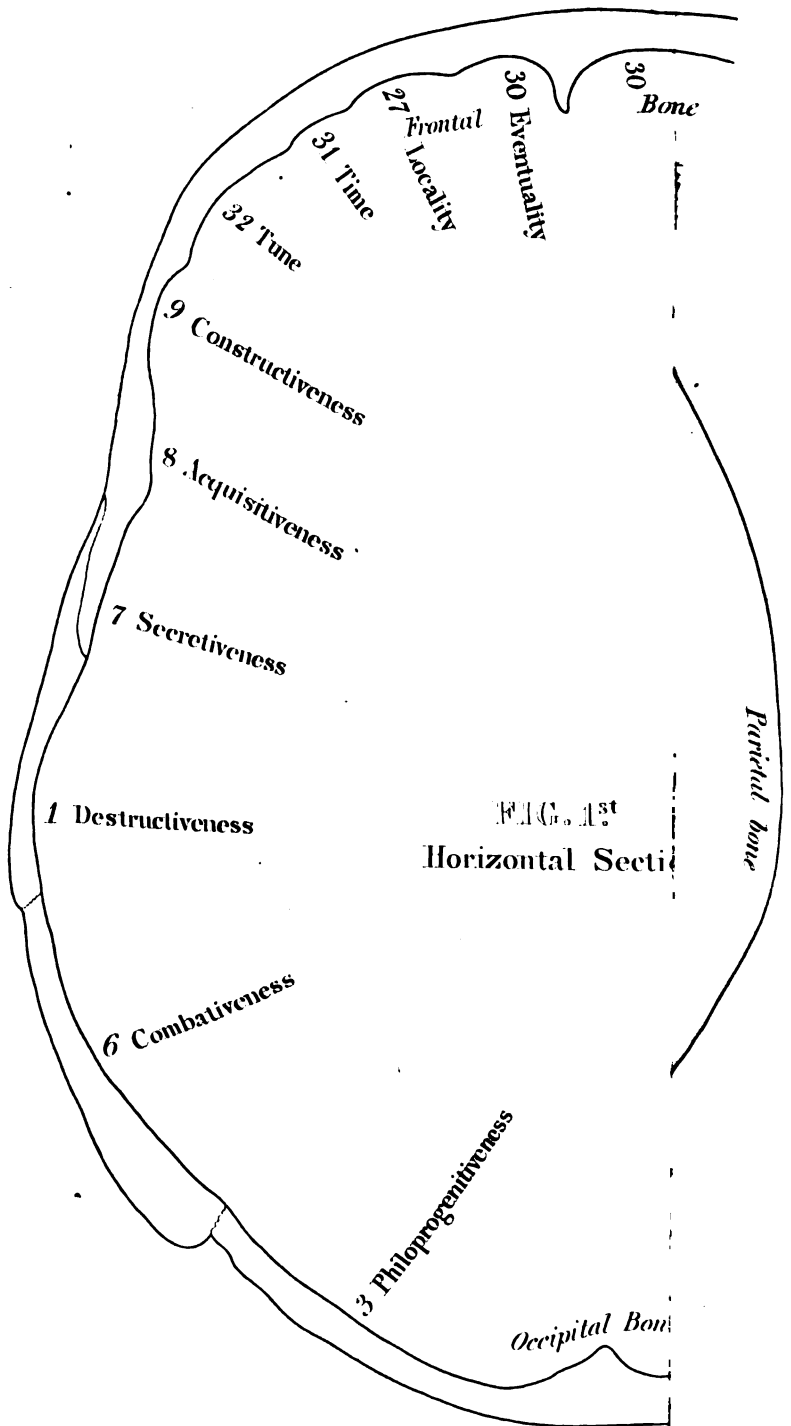


FIG. 1st
Horizontal Section

SECTIONS TH

thinness of the bone translucent, and very distinctly defined within. The frontal sinuses, though prominent, are small for a man of Spurzheim's age, (56 years,) and extend only over the organs of Individuality, Form, Size, Weight, whose developments are very obviously moulded by the inner plate of the skull. It was the opinion of Dr. S. that his own frontal sinuses were small: this judgment is verified by the skull itself. The orbital plates of this bone are peculiar for the depth of their digital impressions, and for the definiteness and agreement of these with the divisions on the marked busts. Could it have been possible for either Gall, or Spurzheim himself, to have marked the division lines of the organs on the outside of this skull from these impressions within, I believe he would have been astonished at the exactness of the correspondence just mentioned. This is partly shown in the horizontal section (fig. 1.) which I have traced with the greatest accuracy from the skull, its vault being divided in such a manner as to allow it to be done without any chance of error. The section from which the drawing is traced is marked by the dotted line in figure 2, and is made (fig. 1.) in the range of the developments of the organs of Eventuality (30,) Locality (27,) Time (31,) Tune (32,) Constructiveness (9,) Acquisitiveness (8,) Secretiveness (7,) Destructiveness (1,) Combativeness (6,) and Philoprogenitiveness (3). Figure 2, represents a vertical section, likewise traced from the skull, giving a profile view of the skull. As this drawing was made in the median line, the inner plate was not traced, for the reason that the bone, being thicker in that part and forming a ridge for the attachment of the falciform process of the dura-mater, would not communicate a correct idea of its thickness.

Of the Sphenoidal bone, nothing is peculiarly worthy of remark, except the greater than usual extent and depth of the Sella Turcica, the cavity in which lay the pituitary body, and the greater prominence of the clinoid processes.

The Temporal bones are thin, except at their occipital portions, which are thicker than common, and their mastoid and petrous portions, which, though generally thick, are here more bulky than usual.

Nothing uncommon exists with respect to the Occipital bone, except the great size of the foramen ovale, or hole in which the medulla oblongata lay. The width of this hole is one inch and six-twentieths ; the length, one inch, and eleven twentieths.

The Parietal bones are the most irregular in point of thickness, of all the bones in Dr Spurzheim's cranium. At their posterior inferior angles, over the organs of Combativeness they are much thicker than we usually see parietal bones. This is well shown in the drawing of the horizontal section of the cranium. The portions of these bones over the organs of Self-Esteem and Love of Approbation are also more thick, while their superior portions lying over the organs of Firmness are very thin, even to translucency. Again, there are portions running from the anterior inferior angles of these bones to the thin portion just mentioned, which are moulded on the organs of Acquisitiveness, and Conscientiousness, which are much thickened.

Having completed, in as few words as possible, a description of the skull committed to me, I shall, without drawing any conclusions, ask the following question. From the knowledge which we possess relating to the characteristics of Dr Spurzheim, together with the fact that the bones of the frontal region and part of the sincipital are thinner than usual and more distinctly marked with digital impressions, may we not infer that the organs on which these bones are formed, continually changing and forming anew, are more active than those on which the bone has become thickened without other marks than those indistinctly determined by the boundaries of organs ?

ARTICLE III.

Edinburgh Phrenological Journal.

AMONG the new phrenological publications that are almost daily laid upon our table, we welcome none more cordially than the *Edinburgh Phrenological Journal*, the 39th, 40th, and 41st numbers of which we have just received. In point of ability and the importance of the subjects discussed, it is inferior to no other periodical in Great Britain or America ; and during the time it has existed, (ten years,) it has been sustained with unvarying vigor, and has pursued its high objects with a perseverance unshaken by ridicule, misrepresentation, and abuse. To express its character in a word, it has been devoted to the cause of human improvement in the most enlarged and significant meaning of the term. The subject of EDUCATION, has shared a large portion of its attention, and we have not a doubt that from this journal, this branch of moral science has received an impulse, for which it is indebted to no other single source whatever. Its pages have been frequently enriched with most valuable contributions on the principles of CRIMINAL LEGISLATION, PENITENTIARY DISCIPLINE, and the nature and treatment of INSANITY, in which it has shot far ahead of its contemporaries, in advocating the improvements required by the increase of knowledge and Christian philanthropy, and in the general soundness and enlargement of its views. It should be in the hands of every one interested in the progress of liberal ideas, and in families it would well supply the place of less useful periodicals. It is our purpose in future to make our readers acquainted with the contents of the most important articles, and accordingly we begin with the 39th number, for March, 1834.

Art. I. — *Practical Application of the Phrenological Principles of Criminal Legislation to the Penitentiary System.* This article, we observe, comprises a part of Mr Simpson's book, just republished in this country, on Popular Education, and will be considered in our notice of that work.

Art. II., is a brief notice of the American edition of Dr Spurzheim's work on '*Phrenology in connexion with the study of Physiognomy,*' in which Mr Capen's Memoir of the Dr's life is declared to be a very 'accurate and judicious narrative,' — 'the most ample biography of Spurzheim that has yet appeared,' and Mr. Fowle's account of his visit to his school, is extracted.

Art. III. — *Some Account of the Gang-Murderers of Central India, commonly called Thugs, accompanying the Skulls of seven of them.* By Henry Harper Spry, Esq. Bengal Medical Service Saugor. The Thugs, or Stranglers, as the names implies, are a set of abominable creatures, who make murder and robbery the business of their lives — a business, moreover, to which they are born and regularly brought up, by their parents. It is enough to shake the firmest nerves to read the story of their horrible murders, where a score of human lives is sacrificed, for a few rupees, with less compunction than a school-boy worries a cat. They are scattered over a considerable extent of country, where they have families and homes, associating together in gangs under the guidance of experienced leaders, and infecting the roads in the pursuit of their prey. In each gang are two or three smooth-spoken fellows, whose business it is to join the ill-fated travellers, lull their suspicions, and by degrees introduce the rest of the gang. All suspicion being asleep, a private signal is at last made, a handkerchief is thrown around the neck, the work of death is rapidly completed, and the bodies are cast into graves prepared to receive them. It would hardly be thought, at first sight, that such wretches had any regard for 'powers above;' but so it is, and as might be supposed, the character of the Deity is fashioned after their own. On their return from their exhibitions, they conceive it necessary to propitiate the goddess Bhowanee, whose priesthood, it appears, connive at their practices, and excite them to their bloody work, by promises of immunity and wealth, provided a due share

of the spoil be offered up at her shrine. One of her temples is constantly filled with murderers from every quarter of India, who go thither to offer up a part of their ill-gotten wealth. Dr Spry furnishes a particular account of seven individuals who were executed for their crimes, and Mr Robert Cox has subjoined a few pages of remarks on their skulls, which were sent to the Phrenologists of Edinburgh. They are of smaller size than the European average. In most of the individuals the propensities decidedly predominated, but Destructiveness is not a predominant organ in any of them—a fact which those wiseacres who create a phrenological system out of their own crude fancies, and then, after valiantly demolishing it, sing their pæans over the downfall of Phrenology, as they did in the case of Thurtell's Benevolence, would consider a subversion of the science beyond all hope of redemption. Let us see how Mr Cox reconciles it with their characters :

‘When Destructiveness is the predominant organ in the head of an individual, he delights in taking away life from “ruffian thirst for blood;” but the thugs murdered obviously for the sake of robbing, and under the influence of other motives, to be immediately explained; and also because they had been trained to this mode of life from their infancy. The skulls show that combination of large organs of the animal propensities with comparatively moderate organs of the moral sentiments, which predisposes individuals to any mode of self-gratification and indulgence, without restraining them by regard to the rights and welfare of others. The thugs belong to the class of characters in which I would place the captains and crews of slave-ships, and also the more desperate among soldiers; that is to say, men who individually are not quite so prone to cruelty, that they would of themselves have embarked in a murderous enterprize unsolicited; but who, when temptation is presented to them, feel little or no compunction in yielding to it.’

All the circumstances in which they were placed, furnished no other motive to action than such as were addressed to Destructiveness, and Acquisitiveness. Their education—Dr Spry says, that ‘many boys go on the roads as thugs, because their fathers did, and not from any inherent ferocity of disposition,’—the influences of the priests and the promises of their religion, are all powerful inducements to follow the course of blood-shed, and

pillage ; and these find no counterbalancing weight in benigner circumstances. Their Approbativeness and Self-Esteem, which are large, are also strong stimulants to the commission of their atrocities. When one has passed through the different grades, for thus the members of this community are arranged, and shown that he is qualified for the higher branches of the profession, that is, to strangle a victim himself, the priest, in presence of all the gang, presents him with the fatal handkerchief, and by appeals to the example of his family, the favor of the goddess, and the approbation of his fellows, excites him to signalize himself in the horrible service. Cautiousness, which is also large, is a powerful ally of Destructiveness, for it prompts them to act on the maxim that ‘dead men tell no tales,’ and consequently they never rob till after they have murdered. They never meddle with Europeans nor the native runners of the government, for fear of the inquiry which might result. Amativeness is large, hence ‘they indulge in every carnal propensity.’ Philoprogenitiveness and Adhesiveness are well developed, and several traits in their character are related, which show their operation. Individuality and Locality, corresponding with the memory and power of observation, these thugs manifest, in ascertaining the characters, trade, name, residence, and intentions of their victim, and in recollecting facts that occurred many years before, and especially in the accuracy with which they will point out the graves where the bodies are laid, after the lapse of several years. As it might be expected, Conscientiousness is small, as it is in all the Hindoos.

Art. IV. — *Professor Blumenbach, and Phrenology.* This veteran naturalist, has been represented as having said that ‘What of Phrenology is true, is not new ; and what is new, is not true.’ Mr Combe having heard that he neither admitted it to be true, nor false, informed him of the fact by letter, and requested him to express his real opinion on the subject. To this letter no answer was ever received ; whence it is inferred that the representations which had reached Mr Combe were correct

Art. V., gives the dimensions of a cast of Spurzheim’s skull, sent by the Boston Phrenological Society.

Art. VI.—*Pursuit of Knowledge under Difficulties. Memoir of Mr John Sisson.* An interesting paper; but our limits forbid us from noticing it farther.

Art. VII.—*Notes, chiefly historical, on the Philosophy of Apparitions.* Many writers, such as Bayle, Shenstone, Voltaire, Drs Alderson, Ferriar, and Ribbert, have accounted for visions on physical causes alone, which they have considered to be disease or other disorder of the brain. Later philosophers, among whom we may mention Sir David Brewster, and Sir Charles Bell, look for their cause in an affection of the organ of vision, whereby false and fantastic impressions are transmitted to the brain. Phrenology has demonstrated to the satisfaction of all who are willing to be convinced by evidence, that the only cerebral parts affected, are Form, Color, Ideality, and the other perceptive organs.

Art. VIII.—*Fatalism and Phrenology.* If the Phrenological doctrine of the innateness of human faculties and dispositions, places man under the influence of fate, then, observes the writer, all systems of Philosophy which teach the innateness, not of ideas, but of sentiments and dispositions—and it is done by some of our most approved metaphysicians, such as Kames, Reid, Stewart, and Brown,—are obnoxious to the same charge, so that Phrenology has no claim to the enviable distinction of inculcating the doctrine of necessity.

Art. IX.—(Review.) ‘*Wisdom and Reason; or, Human Understanding considered with the Organization, or with the Form and Nature of the Solids and Fluids of the Body. How much their wrong or different Formation may affect our Wisdom, Judgment, or Reason. Some examinations about Wisdom; as, also, of our common Conduct and Learning, and the most material affairs of Human Life: with Reflections upon a Single and Married State, and upon the Education of Youth in General.* London, 1814. pp. 144.’

In this work, whose nature is sufficiently indicated by the title, the doctrine that the diversity of the moral and intellectual powers of men results from diversity in the organization of the body, and especially of the brain, is very distinctly inculcated. ‘His anticipation of Phrenology, as it will probably be termed by some,’ says the Reviewer, ‘makes a nearer approach to the modern

system, than any other that has come to our knowledge.' It is certainly remarkable how differently from the common modes of thinking of his time, this author speculated, and how nearly he approached to those of a much later date, which are the result of observation and the particular examination of nature.

Art. X. — (*Review.*) *A Treatise on the Nature and Causes of Doubt in Religious Questions, &c.* We commend this article to the writer in the EXAMINER, and the rest of those worthy gentlemen who are in the habit of inditing stupid stuff about the materialism and wrong tendency of Phrenology. We would quote it for their special edification, but have too much regard for the understanding of the rest of our readers, which we are bound to consult in preference to theirs. One passage, however, from Dr Rush, quoted in the article, we will extract, for it contains, within a dozen lines, the whole pith and marrow of the question.

'The celebrated Dr Rush, of America, remarks, I think most justly, upon this subject, that "*the writers in favor of the immortality of the soul have done that truth great injury by connecting it necessarily with its immateriality.* The immortality of the soul depends upon the will of the Deity, and not upon the supposed properties of spirit. Matter is in its own nature as immortal as spirit. It is resolvable, by heat and moisture, into a variety of forms; but it requires the same Almighty power to annihilate, that it did to create it. I know of no arguments to prove the immortality of the soul, but such as we derive from the Christian revelation."'

Dr Rush was a philosopher, and moreover always knew what he was writing about, which is more than can be said of all those who write against Phrenology.

Art. XI. — (*Review.*) *The Philosophy of Sleep.* By Robert Mucknish, Author of the *Anatomy of Drunkenness.* Second Edition. In the first edition, the author had adopted the phrenological explanation of dreaming and other phenomena connected with sleep, but did not distinctly enough acknowledge the source to which he was indebted. In this edition, he comes out unreservedly and boldly in favor of the science which he declares to be 'the only one capable of affording a rational and easy explanation of all the phenomena of mind.'

Art. XII.—*The Skull of Raphael.* It is now well established that the skull in the possession of the Academy of St. Luke at Rome, and shown for Raphael's, did not belong to him, but to a certain Don Desiderio Adjutorio, and that Raphael's skull has been lately discovered beneath the Pantheon. As these facts have given rise to no little merriment on the part of our opponents, because Phrenologists had talked and written about the spurious skull as if it had been genuine, we shall quote the concluding observations of the editor in another notice of this subject in the XLI. No.

'The skull, we are further informed, differs from that of Don Desiderio Adjutorio, formerly supposed to be Raphael's, in being narrower, and having less general volume; but the combination of the organs is very favorable to the excellence in the fine arts; and from the portraits of Raphael, but more especially from the delicate texture of the skull, it appears that the quality of the brain was exceedingly fine. It is well known that designing and expression were the departments of art in which Raphael most excelled; and in conformity with this, both of our correspondents notice a large development of Form and Imitation. The organ of Coloring, Dr. Verity states, to be only full; a circumstance which holds also in the case of Don Desiderio. Constructiveness does not seem to be so protuberant as with the latter. On several points our friends are a little at variance; so that we refrain from offering any detailed remarks at present. Both agree as to large Amativeness, Concentrativeness, Adhesiveness, Secretiveness, Cautiousness, Love of Approbation, Imitation, Form, Size, Locality, Causality, and Comparison. Of the organ of Hope, Raphael had only a full or moderate development. Dr. Verity adds: "In the Capitoline Museum there is a bust of Raphael, executed by Carlo Maratta in 1674, giving very much the same development of the intellectual organs, of Benevolence, and of Imitation, as appears from the skull; together with large Form. In his own portrait, painted by himself, in the School of Athens, there is the same broad expanse of forehead, and a deep pensive intellectual expression pervading the whole countenance. His stature was below the average; and, as far as we can judge from portraits, his temperament must have been highly nervous, with that combination of the bilious so prevalent among the southern Italians."—We are informed that Don Desiderio Adjutorio was passionately fond of the fine arts, an amateur, a priest, a man of learning and refinement, and the founder of St. Luke's Academy of Painting. Is it wonderful, then, that, in

cerebral development as well as character, he and Raphael should have in many particulars resembled each other?’

No. XL. Art. I. — *On the life, character, opinions, and cerebral developments of Rammohun Roy.* Extracted in our 3d No., particularly interesting to general readers.

Art. II. — (Review.) *Thoughts on Materialism, and on Religious Festivals and Sabbaths.* By H. B. Fearon. Little to do with Phrenology, though our opponents incontinently insist on the connexion.

Art. III. — (Review.) *Thoughts on the true mode of improving the condition of Man, also the Pathology, Prevention and Treatment of Intemperance, as a form of Mental Derangement.* By Charles Caldwell, Lexington, Kentucky. 1833. Judging by the extracts, we are disposed to think very highly of these productions of Dr. Caldwell, and regret that we never have had the pleasure of meeting with them. Guided by all the analogies of nature, he arrives at the conclusion, that the true mode of improving the condition of man, is that of improving his organization. This, of course, is to be accomplished in the manner that the domestic animals are improved, viz. by obtaining for every individual the maximum of health by means of a suitable physical education, and confining marriages to the mature and healthy. The ‘Thoughts on Intemperance’ shall be particularly noticed as soon as we can come at the original article, for there is much truth in it of which people are little aware, we apprehend, even in this age of Temperance Societies. The last paragraph of the article gives an account of Dr. C.’s introduction to Phrenology, which is but one of a multitude of similar cases that we could readily collect, and which we have a great mind to do, for the benefit of those of our opponents who think more of great names than the evidences of nature.

‘When we first had the good fortune to meet him in Paris, about fifteen years ago, he was only beginning to make himself acquainted with the science and its evidences, and up to that time had joined in the current ridicule of the day, and talked lightly of its pretensions and

professors. But being induced to attend one of Dr. Spurzheim's lectures in that city, he was astonished to see before him a calm and profound thinker and accurate observer, who, instead of indulging in flights of fancy to mislead his hearers, constantly appealed to facts in support of every statement and every opinion, and left no room whatever for imagination to come to his assistance. Thus impressed, he returned to the lecture-room with eagerness increasing in proportion as he saw the error into which ignorance had led him. He now ceased to ridicule, but while he did justice to the virtues and talents of the lecturer, he still refrained from expressing an opinion of the science until he should have fairly tested its truth. Having at length satisfied himself on this point, after long and extensive observation, Dr. Caldwell no longer hesitated to stand forward the able and zealous champion of the cause which he had formerly ridiculed; and we need hardly say, that the testimony of such a man outweighs, in our mind, that of fifty or a thousand "great believers," whose faith is nothing more than an indication of easy and good-natured credulity.'

Art. IV. — *On the Education of a civil or mechanical Engineer.* The hints are very good, but hardly adapted to our meridian.

Art. V. — (Review.) *Wisdom and Organization, &c.* The continuation of the article in the last Number.

Art. VI. — *Injuries of the Brain not always attended by manifest disorders of Mind, &c.* One of the most common objections to Phrenology urged by those who are only very superficially acquainted with it — the more knowing ones have done with it long since — is, that after injuries or diseases of the brain which have been followed by a loss of substance or lesion of structure, the faculties of the mind are still unimpaired. Now if this objection be really wellfounded, it becomes those who use it, to tell us what the brain is made for, unless they believe it was put in merely to fill up and keep things snug and tight, as Paley thought the spleen was. Our answer is very short and simple. In the first place, the organs of the brain are double, so that when attacked by disease or injury, the function which before was performed by both, is now discharged by the corresponding one of the other side, and that oftentimes without any derangement in the manifestation of the function. This is in accordance with a well known law of the

animal economy, instances of which are by no means uncommon, and one of which for the purpose of impressing this truth more strongly, we will mention. In an account of a post-mortem examination published by the late Dr. Gorham in one of the early Numbers of the New-England Medical Journal, it will be seen that the lung on one side was entirely wasted, and must have been incapable of performing any function whatever, for years before. This man was a trumpeter, or player on some other wind-instrument, by profession, (we quote from recollection,) and not until a day or two before his death, was there the slightest ground for suspecting that his lungs were not perfectly sound. Now, as just intimated, we might quote many similar cases, but shall we therefore intimate the stupidity of the anti-phrenologists, and contend that respiration is not performed by the lungs? The second branch of our reply is so well handled by the writer, that we prefer to make use of his own language.

‘ There is, however, another ground of fallacy, which must be kept in mind. In disease we are apt to affirm that the mind is unimpaired, merely because the patient is calm and collected, and answers a question with readiness. But we would ask, is there no difference between being able to answer a common question, and being able for those vigorous mental efforts required for treating successfully an abstract or difficult subject? Are we not all conscious of possessing different degrees of mental power even at different periods of the same day, although even when at the lowest ebb we are still reasonable beings? And is the mind to be considered *unimpaired*, when its organ is no longer able for the clear thinking and vigorous emotions in which it formerly delighted? So far as we have ever observed, there are no instances of extensive lesion of the brain in which *all* the mental powers continue to be exercised *with undiminished energy*. On the contrary, there is scarcely any cerebral affection which does not impair or alter in some degree the condition of the mind. Even a common cold in the head reduces the powers of thinking for a time; and the true statement ought to be, that all injuries of the brain are not attended with marked aberration or weakness of mind, or delirium: but it is a gratuitous delusion to maintain, on that account, that all the faculties remain in their original strength. In the case of the lungs, again, it is quite credible that the patient may not have been sensible of any shortness

of breathing in walking leisurely about the wards of an hospital, where no great exertion is needed ; but if he had been made to ascend a hill, or to engage in labor requiring full respiration, the deficiency would have become obvious enough. In the one case there was sufficient mind for common-place purposes, just as in the other there was breath enough for moderate exertion ; but had either patient been called upon for an effort to which any person in ordinary health would be perfectly equal, he would assuredly have been found wanting. It is true, that when one side is rendered inefficient from disease, the other takes on increased action to make up for the loss ; but it rarely if ever happens, that the increase thus produced goes sufficiently far to compensate entirely for what it subtracted.'

Art. VII. — *The North American Review*, No. 80, July, 1833. Article, 'Phrenology.' An admirable reply to that part of the article which tries to show the impossibility of discovering the relative size of the different portions of the brain. No single extract can convey an adequate idea of the pungency and conclusiveness of the reasoning.

Art. VIII. — (Review.) *Mental Culture, &c.* By J. L. Levison. This excellent work, which every parent ought to read, is noticed favorably, but not so fully as its merits deserve. The Reviewer urges 'want of space,' as his reason for not giving it a more extended notice; but in a journal like this, expressly devoted to Phrenology, there should always be room for a full account of such a work as Mr. Levison's. But 'this is the less to be regretted, as the author's ideas seem, in many instances, borrowed from Dr. Spurzheim,' says the writer. Can he point to any phrenological work ever published in which 'many of the ideas are not borrowed' from Spurzheim, or Gall, or Combe ?

Art. IX. — *Cyclopædia of Practical Medicine.* Dr. Prichard and Phrenology. In an article on Temperament, lately published by Dr. Prichard in the London Cyclopædia of Practical Medicine, the arguments against Phrenology are advanced which are here considered. As the writer in the Christian Examiner seems to have derived nearly all his notions of Phrenology from this source, they will be more properly examined in our reply to him.

Art. X. — *Observations on the Skull of Robert Burns.* A long article on Burns appears in the next number, to which we shall call our reader's attention, hereafter.

No. XLI. Art. I. — *A Discourse on the Studies of the University.* By Adam Sedgwick, M. A., F. R. S., &c. *Wordwardian Professor and Fellow of Trinity College, Cambridge, 1834.* Professor Sedgwick is very favorably distinguished among the scientific men of Great Britain, not merely for talents and acquirements, but for the peculiar enlargement and liberality of his general views. The present discourse proves that his reputation is not ill founded, for being a little in advance of his time, in matters pertaining to education, and the relations of science to the constitution and destiny of man. The ability with which it is written, and the high moral and rationally religious tone of feeling which pervades it, has made it very justly admired and sought after. It is noticed in the *Phrenological Journal* not only for the indirect connexion of any thing on education with Phrenology, but for its acknowledgement of many principles first propounded and established by proof, by Phrenologists. He affirms that the moral government of God is by general laws, and that it is our duty to study those laws, and, as far as we can, to turn them to our account. He classes the studies of Cambridge under three heads: — 1st, The study of the laws of nature, comprehending all parts of inductive philosophy; 2d, The study of ancient literature; and 3d, The study of ourselves, considered as individuals and as social beings. Under the second head he expresses his opinion 'that for the last fifty years our classical studies, have been too critical and formal; and that we have sometimes been taught, while straining after an accuracy beyond our reach, to value the husk more than the fruit of ancient learning.' So great an advance of one's contemporaries, joined with the independence requisite for making known, and that too in the place where, of all others, the opinions would prove least acceptable, is certainly no very common phenomenon.

Under the third head he finds fault with Locke and Paley, whose works have long formed prominent subjects of instruction in the

University of Cambridge, because they have denied the powers of imagination and the moral sense, as innate faculties.

‘Amidst all the ruin that is within us,’ he says, ‘there are still the elements of what is good; and were there left in the natural heart no kindly affections and moral sentiments, man would no longer be responsible for his sins; and every instance of persuasion against the impulse of bad passion, and of conversion from evil unto good, would be nothing less than a moral miracle. On such a view of human nature, the Apostles of our religion might as well have wasted their breath on the stones of the wilderness as on the hearts of their fellow-men in the cities of the heathen.’

The Reviewer is gratified to see these views, which have often appeared in the pages of the *Journal*, so ably expounded and advocated by Prof. S., but regrets that he has not favored us, in some detail, with his notions of ‘the ruin that is within us.’

‘Correct conceptions on this point necessarily lie at the foundation of all sound natural theology and moral philosophy. Mr. Sedgwick has expounded the past records of creation, and gives us positive assurance that they reveal “strange and unlooked for changes in the forms and fashions of organic life, during each of the long periods he thus contemplates;” and that the structure and functions of each race of animals as it appeared on earth, were admirably adapted to its physical condition. Man, he says, was introduced only lately into the world, which had been the theatre of life, death, and change, for countless ages before he appeared. Does he mean to maintain that man, *such as we now see him*, is not as admirably adapted to the world, such as it at present exists, as his predecessors among the animals were to their respective external circumstances? Does he intend us to believe that there are within us positively noxious and sinful principles, which have no legitimate sphere of activity? or, does he mean that all our powers are in themselves good, but only liable to abuse? He does not hint at any solution of these questions. He may plead that, in a single discourse, he could not discuss every topic of so extensive a subject; and we give due weight to this apology: but we revert to our proposition; that the solution of these questions lies at the very threshold of natural religion and moral philosophy; and we add, that, in general, modern writers on these subjects, except the phrenologists, studiously blink them.

'Phrenology affords us evidence that man himself, such as we now see him, with all his organs and faculties, is a being as evidently adapted to the existing state of the world as any of his predecessors were to the physical conditions under which they existed. His organs of nutrition and absorption imply growth, maturity, and decay; his organs of Amativeness and Philoprogenitiveness imply a succession of generations, or the death of individuals: his organs of Combativeness and Destructiveness indicate that he is constituted to move in a state in which he may encounter difficulty and death: his knowing and reflecting faculties proclaim that he is invested with power to improve himself and his condition by the exercise of his abilities; while his moral and religious sentiments indicate that he is destined to flourish in society, to practise virtue, and to adore his Creator, as the great ends of his existence.

'The human constitution, in short, contains demonstrative evidence of its adaptation to a world such as that in which we now live, and to a progressive march of improvement by the exercise of our own powers. We do not exclude assistance to these powers from above; but we mean to say, that the exercise of the elementary faculties, according to the laws of their constitution, is absolutely indispensable to human improvement in this life.

'Phrenology further informs us, that man has received no appetite, faculty, or function, which, when viewed in reference to his circumstances, can be truly pronounced to be in itself bad; that all his powers bear the marks of Divine wisdom and goodness; and that there is no natural "ruin" in his frame. It shows that each faculty has a legitimate sphere of action, within which its manifestations are not sinful; and that the actions, the existence of which has given rise to the doctrine of the "ruin," are mere abuses of powers in themselves useful and necessary. It also throws some light on the causes which render certain individuals particularly prone to abuse their faculties.'

Notwithstanding Prof. Sedgwick recognizes the great truth that the moral government of God is by general laws, which it is our bounden duty to study; yet he does not seem to be aware that the true theory of this moral government is the independent, adjusted, and harmonious action of the different natural laws, and that these laws and that action cannot possibly be understood without taking into the account the influence of organization on the mind, that influence being a fundamental fact in human nature. How should he

have been aware of it, if ignorant of Phrenology when it was first distinctly announced and illustrated? He certainly could not have been ignorant of its existence, but appears to have considered it not worthy of his consideration; while at the same time he was conscious of the deficiencies of the present systems of the philosophy of man, and held to some of the leading principles of the phrenological philosophy. Judging from the extracts, we should think Prof. S.'s discourse one of uncommon ability and comprehensiveness of intellect. The London Quarterly Review pronounces it one of the most remarkable pamphlets that have appeared since Burke's celebrated REFLECTIONS. Is there no American publisher with sufficient discernment of its merits, to republish it in this country?

Art. II. — *Affection of the faculty of Language from injury of the Brain.* In this case, in consequence of a fall, there was a loss of the power of moving the left side of the body, and of articulating words, with the exception of one or two of the simplest monosyllables. The patient was quite aware of his situation, and understood all that was said within his hearing, while at the same time he could not comprehend the meaning of written or printed language. About seven months from the time of the accident, he died. On dissection, there was found, among some other morbid appearances, 'a very distinct ramollissement, [softening,] to the extent of about a shilling, but of little depth, on the inferior surface of the anterior lobes, corresponding with the bulbs of the olfactory nerves, and the cribriform plate of the ethmoid bone.' 'The great puzzle,' says the writer in the Journal, 'is to explain how the patient could understand *what was said to him*, when at the same time, he could neither attach words to his own ideas, nor comprehend the meaning of *written* or *printed* language.' The disease must have implicated the organ of Form on both sides, and a phrenologist who witnessed the dissection, says that the organs of Language were involved also. The writer suggests that 'the disturbance of function in the organ of Form may have been the cause why the association between certain visible forms or letters and their meaning no longer existed.' This, however, he thinks,

does not solve all the difficulties, nor does he attempt it by any other explanation. Neither do we know that we can; but we cannot help thinking that the phenomena in this case imply that the faculty of *speaking* is distinct from that of understanding *spoken* language, and consequently must be exercised by two different organs. The inference is, that the organ of Language, as at present received, is in fact two organs, instead of one. This view of the matter seems to be supported by what we know of brutes. That they comprehend spoken language, in a greater or less degree, is a perfectly well established fact; while at the same time they are destitute of the power of speaking. Since, considering the situation of the disease, it is probable that only the inner portion of the convolution belonging to Language was affected, is there not some ground to suspect that this exercises the faculty of speaking, while the outer portion discerns the relations between ideas and sounds as their representatives? At any rate, the fact is worth being remembered for future use.

Art. III. — *Characteristics of the Caribs.* The writer is indebted to an old work, entitled 'Histoire Naturelle et Morale des Iles Antilles,' published at Rotterdam, in 1658, for some notices illustrative of some of the moral and intellectual traits of this race. As he promises to describe the Carib character at greater length, in a future number, we shall say nothing on the subject at present.

Art. IV. — *The Book of Aphorisms. By a modern Pythagorean.* 1834. (*Review.*) This book is by Macknish, the author of the 'Philosophy of Sleep,' and though the Journal sets it down as a 'very entertaining and readable book,' displaying 'much humor, sagacity, and knowledge of human nature;' yet, from the specimens extracted, we are inclined to think that the Aphorisms of the modern Pythagorean have been made, for the most part, like nineteen out of twenty of all the aphorisms we have ever read, by a recipe something like the following: Take some plain, every day truth, the more common-place the better; twist, distort and stretch it to the utmost limit of extravagance, till hardly a semblance of its identity remains; dress it up in an epigrammatic, or other striking form of speech, and it is fit to go abroad under the title

of an 'Aphorism.' For instance ; nothing is better known, than that a man's friends are often disposed to estimate his talents too highly ; but let us see how this old, bald common-place comes out of the hands of the aphorism-maker, who, in the cases we shall mention, is the 'modern Pythagorean.' 'Never believe a man to be clever on the authority of any of his acquaintances.' Does the author practise upon this precept ? No, nor any one else.

It is well known too, that men of great abilities *sometimes* excel in light, trivial talk ; whereupon our author declares that 'the most difficult thing in the world is to talk good nonsense. No person can do it but one of first rate ability. The nonsense of a man of genius is better than other people's sense.' Does he not know, and does not every body know, that a great proportion, yea, a majority of those who talk good nonsense, can talk nothing else. If he mean by nonsense something over and above what is commonly understood by it, what then becomes of the whole pith of the aphorism ?

We do not imagine, however, that all the author's book is like this : in the four pages extracted into the Journal, are several instances of fresh, spirited thinking. Take the following :

'It has been the occasion of surprise to many, that Switzerland, the most romantic country in Europe, has never produced a poet. They imagine that the scenery should generate poetry in the minds of the inhabitants ; but this is confounding the cause with the effect. It is not the scenery which makes the poet, but the mind of the poet which makes poetry of the scenery. Holland, perhaps the tamest district in the world, has produced some good poets ; and our own immortal Milton was born and brought up amid the smoke of London. Spenser, the most fanciful of poets, was also a Cockney.'

'If you wish to impose upon stupid people, be very mysterious and unintelligible. The less you are understood, the more highly will you rise in their estimation. The great secret of the success of many popular preachers consists in bamboozling their hearers. Sensible, intelligible preachers are seldom popular. This may be received as an uncontrovertible fact.'

Art. V. — *Necessity of Popular Education.* By James Simpson. (Review.) Art. VII. — *Opinions of Tiedmann and Arnold*

respecting Phrenology. Art. VIII. — *An Essay on the Character and Cerebral Development of Robert Burns.* By Robert Cox. All published in 'Annals of Phrenology.'

Art. VI. — *Pauper Lunatic Asylum at Hanwell.* The superintendent of this institution, Dr Ellis, acting in the belief that insanity is almost always a partial, not a total, aberration of reason, and consequently that in all cases alleviation, and in many, cure, may be effected by temperately, yet steadily, exercising the sane faculties, and soothing the insane to repose, has obtained wonderful success in his treatment of the insane. This he has done by carefully arranging and distributing his patients; by classifying them, in which he has been much assisted by studying the minute indications of character furnished by Phrenology, in which he implicitly believes; by occupying his patients' minds constantly by light *useful* labor; by encouraging them to undertake long, consecutive tasks, and lastly by undeviating kindness and affectionate familiarity of manner. This institution has drawn considerable attention, and been visited by many distinguished persons; among others, Miss Martineau, who spent a day there, and published an account of her observations in Tait's Edinburgh Magazine, for June, 1834.

Art. IX. — *The Principles of Physiology applied to the preservation of Health, &c.* By Andrew Combe. (Review.) As this excellent work forms a No. of Harper's Family Library, we trust it is already too well known to our readers by a careful perusal, to need any notice of its contents here. It is truly an invaluable work.

ARTICLE IV.

Last Death of Phrenology ; effected by the Mask of NAPOLEON BONAPARTE. Read before the Boston Phrenological Society. By WILLIAM B. FOWLE.

EVERY body knows that Phrenology has died a great many times, until at last it has got used to it, and undergoes the operation as a matter of course. Our science died when its founder was forbidden to promulgate his doctrines in Austria. It died again when Cuvier was weak enough to lend his name to a report against its claims, or rather did not report in their favor. It died a third time when the *Edinburgh Review* denounced it as utter folly ; it died also when Gall and Spurzheim died, and as their enemies predicted, left their works speedily to follow them. Finally, it died when a mask of Napoleon Bonaparte taken after death, was declared to be a complete refutation of that first principle of phrenology, the correspondence of external development with intellectual power. I recollect a line of an old hymn, which says, 'It is a dreadful thing to die ;' but really there is no rule without exceptions, for the proscription of our science in Germany gave Gall to France, and France very properly to the *Gall*. The second death gave an impulse to anatomical and physiological research, which rendered phrenology the greatest friend of every branch of medical and mental science. The third death gave birth to the *Edinburgh Society*, for a long time the bulwark of our science. The fourth death realized the prophetic declaration that if a grain of wheat die, then most emphatically does it bring forth fruit. The fifth death has just been accomplished, and we are not yet able to determine its consequences ; but verily, I am not afraid in the name of phrenology to say, Let it have many latter ends like these.

I have been led to these remarks by the perusal of a recent paper in the *Paris Phrenological Journal*, (by M. David Richard,)

which attempts seriously to consider the pieces which have appeared in the *Gazette Medicale*, and in the *Revue du Progres Social*, founded upon the mask of Napoleon, taken after death, by Dr Antommarchi. The paper is an elaborate one, and far too long to admit of a translation in the few hours that have passed since I read it. I have thought, however, that a brief analysis of its leading points may be made, and I hasten to give it.

The writer commences with an account of Napoleon's open hostility to phrenology and the probable causes of it. He declares that Gall and Spurzheim had several times developed before Cuvier, and at his own room, their series of important discoveries, and he had openly encouraged and applauded them : but Cuvier was looking to Napoleon, who had appointed or procured the appointment of the examining committee, and Napoleon had sneered at phrenology. Cuvier therefore, like a skilful courtier, 'dodged the question,' and this culpable weakness fettered and still fetters the progress of the science in France.

Geoffry St. Hilaire, on whom the mantle of Cuvier has fallen, declares that Napoleon's prejudice against phrenology was well understood in his family. The empress Josephine, curious to see and hear Dr Gall, was obliged to conceal her intention from her husband ; and, as she was then sitting to Gerard for her portrait, she had an interview with him there. The amiable empress seized the hand of the philosopher and carried it to her head, and begged him with much earnestness to tell her about her bumps. If he did not give a flattering account of them, he was no courtier.

The writer gives some reasons for the prejudices and hostility of Napoleon, which are probable, but not important. They are, in brief, an unfavorable first impression ; his love of the marvellous ; his national pride ; his despotic propensity ; his obstinacy or perseverance in opinions once adopted ; and his Self-Esteem.

The writer then sets Dr Antommarchi aside as no phrenologist, and allows that he has spoken of fundamental organs that G. and S. never dreamed of. He asserts that in taking the cast, the Dr had no regard to phrenology, and the ear of the mask, from which so many measurements are taken, was put on afterwards by guess.

Still M. Richard denies that the cast, as it is, belies the character of Napoleon; and certainly his judgment must be preferred to that of the editor of the *Gazette Medicale*, who is ignorant of the primer of phrenology. As nearly as I could understand the commentaries of the said editor, when they appeared some months ago, I was satisfied that he was a novice in the science, and drew results quite different from those I think a phrenologist would have drawn from the facts before him. For instance, he declares the cranium of Napoleon to be very small, and says it measures about 23 inches in circumference, which measure is very large. He says the emperor should have been strongly marked with Destructiveness, but Napoleon only measured six inches from ear to ear. This is above the average size, and I believe the head of no murderer in our collection measures much more than this.

But to return to M. Richard. He doubts the authenticity or truth of the mask, thinks it has been retouched for effect, but takes it as it is, and denies that its developments are adverse to phrenology; and as the paper is published under the sanction of the Paris Society, we must believe him until we can procure the cast and judge for ourselves. As to the size of the head, Mr R. says, 'the editor of the *Gazette Medicale* declares that Napoleon's head was small; we say it was large, for three reasons. One is, that according to his own calculation based on the mask, it measured 20 in. 10 lines French measure, whilst ordinary heads only measure from 19 to 20 inches, and this measurement depends upon a mask taken when the emperor was greatly emaciated by long sickness. His second reason for thinking the head large is, that all painters and sculptors during his life represented it so. He allows for the liberties taken by the devotees of ideality; but he believes that they embellish, and not that they so directly contradict the truth. The third reason is the size of the hat Napoleon wore at St. Helena, in the possession of M. Marchand, which, at the base, was measured by a committee of the Paris Phrenological Society, and found to be 22 in. 1 line, French, in circumference — more than 23 of our inches. A small head would be extinguished by such a hat.

The writer shows that the editor of the *Gazette* knew little of the nature of phrenological development, and was looking only for

bumps. Where he found none, he concluded, very incorrectly, that the organ was small. As organs are large or small by comparison with others on the same head, it is hardly prudent to judge of a whole head by a mask, which lacks much of the upper and middle regions, and the whole of the occipital. Of this consideration the editor seems to have made no account; and he appears to have known or thought little of the importance of temperaments, education, size, and age.

Heads, says our author, are like watches; one for 15 francs may be as large and have the same wheels as a watch made by Breguet, and nevertheless be inferior to it in every respect.

Napoleon's temperament in youth was nervous-bilious, which must have exerted an immense influence upon the activity and tenacity of his mind. But he became corpulent in after life, and probably was somewhat lymphatic. The writer has one singular idea which I will mention for its novelty. Napoleon wishing to consult a book in his library, raised his hand to take it; a courtier stepped forward and said, 'Let me reach it, Sir, I am *greater* than you.' '*Longer*, you mean,' said the emperor, with a smile. The writer thinks magnitude has never entered into the common idea of greatness, and says that Alexander, Rousseau, La Mennais, and Napoleon had great minds and small bodies; and he maintains that, other things being equal, a low stature is a favorable circumstance, for the circulatory and nervous centres are thus brought nearer to the extremities, and the impressions from without, and the commands of the will, having less distance to pass over, are transmitted with greater promptitude and activity. The following is his estimate of the organs represented in the mask in question :

SMALL.	MIDLING.	LARGE.	VERY LARGE.
Vitateness.	Constructiveness.	Acquisitiveness.	Destructiveness.
Alimentiveness.	Mirthfulness.	Marvellousness.	Secretiveness.
Tune.	Imitation.	Ideality.	What there is of
Color.	Calculation.	Veneration.	Hope and Caution.
	Language.	Benevolence.	Individuality.
		Locality.	Form.
		Weight.	Size.
		Order.	Eventuality.
		Time.	Comparison.
			Causality.

These are the four grades of Dr Spurzheim, and fully account for all that was good or bad in the character of Napoleon.

The author then attempts to account for the difference between the mask and the busts and paintings of Napoleon, on the score of ideality ; but I love matters of fact too well, to relish what I understand of his theory. He believes that genius is enveloped in a kind of medium which illuminates and enlarges it, and which has an influence, perhaps imperceptible, upon the artist, and that the artist would, for this reason, give very different heads of Napoleon when returning from Egypt or Italy, in his glory, and when on St. Helena. He even goes so far as to think animal magnetism is not entirely a dream, but may exert a power upon the artist. As this strange science is about to be revived by some names not unknown in the scientific world, I will not pretend to judge of its claims ; but I will say, that, until I know more of it, I will cling to my own theory of the differences which are acknowledged to exist between the living busts and paintings, and the dead mask of the great man under consideration. This opinion I submit to your candid consideration.

The busts and paintings of Napoleon were made when he was in the prime of life, or in the vigor of manhood ; but the mask, when he had been a prisoner, a dejected exile, a sick and consumptive man, for more than six years. If we believe that exercise of the organs increases their size, (and who doubts this position ?) I need not say that no man ever had fuller employment for all his faculties. We can hardly conceive of the activity requisite to the performance of all the duties which devolved upon Napoleon. Must not his head have undergone a great change from the age of 21 to 45? Must there not have been intellectual development enough to authorize all that has been ascribed to the ideality of painters and sculptors? And again, what must have been the effect of the utter reverse which followed the decree of exile! Did the world ever exhibit a greater contrast than must have existed between the disposer of thrones, planning and executing, as if with one foot on the earth, and the other on the sea, — and the betrayed, brow-beaten, deserted, idle, sick, broken-hearted, and dying exile of the south

Atlantic rock. In my opinion, six years of utter hopelessness, of prolonged suffering, of mortifying debasement and subjection, of family abandonment, of smothered vengeance, of abortive plans, of gloomy retrospection, of dreadful foreboding, and of perfect inactivity of the perceptive and reasoning faculties, must have produced a diminution of the cerebral organs commensurate with their previous development, and sufficient, with his acknowledged emaciation, to account for the difference of size between the busts and paintings and the mask in question. However, this may be, it is clear from the paper of which I have given this imperfect sketch, that the head of Napoleon, if not so large as the artist represented it, was by no means a small one, and, of course, *Phrenology is ready to die again.*

ARTICLE V.

Phrenological Analysis of Infant Education, on MR WILDERSPIN'S System. — [From the Edinburgh Phrenological Journal, Vol. 6, Art. VIII.]

By some, the evidences, or proofs of phrenology are disputed, or denied; by others, its uses are brought in question. To individuals of the latter class, especially, we recommend an attentive consideration of the following article, which shows the direct bearing of phrenology, upon the important subject of education, and the influence which, when it has a 'free course,' it is destined to exert upon the great work of giving exercise and a proper direction to the human faculties. — [ED.]

HAVING had the good fortune to spend some hours in Mr Wilderspin's company about eighteen months ago, we had obtained

some notion of his system before we read his book.* Our first feeling was that of surprise, as well as pleasure, to find that all his practical views of human nature, — for he is utterly unembarrassed by theory, — were, in every, the minutest point, coincident with that analysis of man's animal, moral, and intellectual nature, which it was reserved for Phrenology to *demonstrate* to be the true one ; and that all the machinery of his system was beautifully adapted to the proper exercise and improvement of those powers, the activity of which, according to Phrenology, constitutes human happiness. We naturally asked him if he was acquainted with, and had taken any aid from Phrenology ; and when he answered that he had not, — that, till very lately, he was utterly unacquainted with that, as well as all other systems of philosophy, — our wonder grew as we contemplated an effort of native sagacity, which reduced to waste-paper volumes on volumes written on education, and yet more on the philosophy of human nature.

Mr Wilderspin added, and we owe it to the cause of truth to declare it, that, in 1827, he had been *persuaded* to hear Dr Spurzheim lecture at Glasgow. It required persuasion ; for he confessed a share of the prevalent weakness, which fears the ignorant scorn with which Phrenology is, or rather *was* treated. But he was soon cured of this folly ; and from the lectures, and farther consideration of the system, he has collected enough to see the support it affords to his own views of education ; and to confess, — and we record it as a beautiful, and, alas ! rare example of that genuine candor, the philosopher's brightest ornament, which loves truth better than self, — that, had he known it years ago, it would have incalculably abridged his labors, and shortened his road to his present position.

' Oh ! ' says the enemy, ' is it so ? Is this not an admission, that Phrenology is at most a superfluity ; and that a practical and sound philosophy of human nature can be attained without it ? ' No doubt it would be unction to the enemy of Phrenology, to get at truth without *its* aid. But if he takes, as he here does, *our* ad-

* *Infant Education, &c.*, by S. Wilderspin. Fourth edition. London, Simpkin and Marshall.

mission, he must recollect that that admission is, that Mr Wilderspin and Phrenology have *both* arrived at truth. He must therefore admit Phrenology to be one road to truth, and, as Mr Wilderspin declares it to be, beyond comparison, the shortest of the two with which he is acquainted. These two points are something, but not all the answer. It seems always to be imagined by the uninformed, that Phrenology pretends to have *created* or *invented* human nature; whereas it has never pretended to more than to have *explained* it. Neither did Shakspeare create it, he only described or pourtrayed it— but without explaining it. Mr Wilderspin, again, has neither created, pourtrayed, nor explained human nature; but has acutely and sagaciously watched its manifestations, and fastened his system of infant training upon these alone. The *possibility* to human genius was never denied by phrenologists, of completing a system of human nature, in every point true, from observing its manifestations alone. But many things are possible, which are yet so difficult, that thousands of years elapse before they are achieved. This is the case with a true analysis of human nature. It has not yet been arrived at by any philosopher since Plato's time, by the road of the manifestations of human nature alone. Practical men, like Mr Wilderspin, have, in very rare instances, *acted* upon sound views, of which, nevertheless, they could not unfold the principles; but as to theoretical systems, even Dr Thomas Brown's, nearly as it approximates to truth, is not *in toto* sound and true. Again, a system founded on manifestations alone, does not carry with it its own demonstration; as the manifestations will be, as they have always been, disputed, and the conclusions denied. Even Mr Wilderspin's scheme has met with much opposition, and no small share of ridicule, from the pride of learning and philosophy. But Phrenology affords a *certain* test of it; and that by a twofold means; for it can judge, not only, as all may do, of its accordance with the manifestations of human nature; but, as it alone can do, of the accordance of these manifestations with the human brain. It is in this way that phrenologists pretend that their views of man, as a being compounded of mind and body acting together, can be demonstrated to the senses, as well as the reason,

to be true ; and it is therefore, as Mr Wilderspin has with much readiness admitted, that his scheme has never been so thoroughly understood and appreciated, as it has been by phrenologists. In Edinburgh, accordingly, *they* have so zealously supported him, that some profound persons have discovered that all the other friends of Infant Schools, —including, of course, Mr Wilderspin himself —are mere tools in the hands of the phrenologists ! No matter that Infant Schools have been flourishing in England for more than ten years, and that in Edinburgh, Phrenology is scarcely older. No matter that Mr Wilderspin had published his book years before he knew what Phrenology was. Infant education is, must, and shall be, a wicked device of Clyde Street Hall !

This lamentable nonsense must vanish before the good sense of the thinking part of the public, who judge of infant education, not from its theoretical prospectus, but from its practical effects. There can be no tool-making here ; and if they are really and practically satisfied, they will not grudge to phrenologists, as such, a share in the general, and, we rejoice to say, high satisfaction which prevails on its introduction here, because *their* speculations are in accordance with the cause of that satisfaction. The phrenologists did not devise, they only adopted, infant schools.

But it is time to apply the phrenological test to the infant school system of Mr Wilderspin, and show our readers why we are so much pleased with it.* The objections which we have often and

* Ours is not the proper page for entering into a history of the Infant School System, or determining Mr. Wilderspin's share in bringing it to its present high state of advancement. Immemorably in England, infants have been 'kept out of harm's way,' in what are called Dame's Schools, kept by old women, where they were miserable little prisoners, acquiring nothing either intellectual or moral.

Mr Owen first in this country, — for Fellenberg had introduced infant education, though not at so very early an age, — thought of giving the infants of the New Lanark cotton-mills some innocent amusement, and eventually considerable instruction, while their mothers worked at the mills. Mr Brougham and some of his friends, visiting New Lanark, seized the hint, and having established an infant school at Brewer's Green, near Tothillfields, London, transplanted thither the New Lanark teacher, Mr Buchanan. The latter happened to meet with Mr Wilderspin, then a young man, and had the merit of seeing

often stated to almost all prevailing systems of education are, first, that none of them make adequate, or even positive provision for *moral* training ; secondly, that their provision for *intellectual* training is imperfect, and often nugatory ; and, thirdly, that in this imperfect intellectual training, the physical powers and health are utterly neglected, and often irreparably injured. The common error is founded in the all-pervading ignorance of the primitive powers, faculties, and functions which constitute man, and the consequent inability to adapt education to these, and,—for it is the essence of education,—to improve them by exercise. We said much on this head when we considered Mr Wood's System,* and promised to resume the subject when we came to treat of infant schools. Mr Wilderspin's system makes ample and judicious provision for all these essentials of education.

First, Infant education on Mr Wilderspin's plan, is in complete accordance with the ORGANIC LAWS of Nature ; obedience to which secures health and strength to the bodily frame, and vigor and activity to the mind. The rooms of a properly provided infant school have the means of free ventilation, to which the master and mistress, who know their duty, scrupulously attend ; so that the infants never draw one inspiration of that poisonous air which injures both body and mind, in crowded school-rooms. This immense advantage is secured without sacrificing the comfort of suitable warmth in cold weather ; a point of attention, this last, more important to the health of young and old than is yet sufficiently

his talent for the new system, and of recommending him to the patrons. A new school was established at Spitalfields, of which Mr Wilderspin was appointed master. In his hands the system was of new created, rendered what it now is, and adopted all over the country. Therefore, we should say, Mr Wilderspin did not invent schools for infants, but he did invent what are now called Infant Schools.

It may farther be remarked, that Mr Wilderspin published on the subject, before Dr Pole, whose work is noticed by the Edinburgh Review in May, 1823, [No. 76, vol. 33, page 437,] an able article on Infant Education. Dr Pole merely adopts Mr Wilderspin's views, as they were borrowed and applied to a school at Bristol. Indeed, Dr Pole refers to Mr Wilderspin's book as published previously to his own.

* Vol. v. page 607, *et seq.*

known. Both are provided for in the Edinburgh Infant School. But ventilation within doors, however well maintained, must yield to the free breeze without, and, therefore, for more than half his attendance during the hours of school, the child is at liberty, in a dry airy play-ground ; and, moreover, his play and his lessons are so judiciously alternated, that neither lose their attractions by over duration, or produce even an approach to fatigue on the one hand, or *ennui* on the other. An ingenious rotatory swing, upon which, when he pleases, the child suspends himself by his hands, strengthens his muscles, and opens his chest, without any of the risks of what are called gymnastics. In point of health alone, the little inmates of an infant school are rosier and stouter than the children to be seen in any other school. Still keeping in view the organic laws, cleanliness is minutely attended to ; and not only is actual cleanliness enforced, but cleanly and delicate habits are inculcated and practised. If generally prevalent infant schools shall ever be the fortunate lot of our ancient city, a certain too well known reproach, to which it has been and even yet is subjected, will entirely cease with its cause.

From the air, and exercise, and joyousness of the play-ground, the children are called to their school exercises by the tinkle of a bell ; and their rush into the hall, eager for fresh interest and instruction, forms about the antipodes of the path of Shakspeare's schoolboy,

‘ Creeping like snail, unwillingly to school.’

In the school-room the organic laws are not neglected ; and here the sagacity of the author of the system is truly surprising. By merely observing effects, the sound physiological principle has been practically discovered and applied by him ; first, that the same organs of the brain, like the same muscles of the body, will get wearied and inefficient by too long exertion ; and that the young brain, and still more the infant brain, like the infant muscle, is yet less able than the adult to bear the lengthened strain of continued action. In the infant school of Mr Wilderspin, accordingly, one object of study is never dwelt upon for more than a few minutes, and fresh interest is roused by a change. Listlessness and inattention are

rare ; and even when they do occur, as they occasionally will, in spite of varied occupation, the teacher has a hundred devices to keep up the spirits and vivacity of his little pupils. Some of these have so much of apparent babyism in them, as to have drawn a sneer from the unreflecting ; but deeper thinkers have seen and owned them to be essentially philosophical. The brain is getting a little torpid, a change of objects begins to fail to attract, drowsiness shows itself here and there, and heads are 'nid nodding ;' when, by a sudden word of command, the whole two or three hundred children spring to their feet, clap their little hands in time, jump round, singing the while to the movement, swing the arms, throwing them into every position, twist the fingers, imitate the operation of the saw-pit with the appropriate sound of the breath, which at once exercises the muscles, opens the chest, and pumps the lungs, perform the movements of the corn-sower, the reaper, the thrasher, the blacksmith, the carpenter, with songs to suit, laugh heartily again and again at some drollery of the master's, — for not only 'many a joke,' but many a trick has he ; and then, by tinkle of bell, all is hushed ; they return to their letters, their syllables, their numeration, their Scripture histories, and their geometrical figures, in a much more business-like manner, than all the dullness, and tediousness, and severity, of a *regular* school has ever effected, or ever will effect. Should all means of reviving fail, it is the best evidence in the world that the school-room is no longer the place for the existing state either of body or mind ; and in an instant, the play-ground is alive with the whole establishment. Yet, let the experiment be tried, ring the bell in five minutes, and such is the never-failing expectation of something interesting or entertaining in the hall, that the door-way is too small for the rush that is made into it.

Secondly, Infant education, on Mr Wilderspin's plan, is in accordance with the INTELLECTUAL LAWS of Nature. The exercises already described, and which are approved by a sound anatomy and physiology, are, strictly speaking, organic, tending to oxygenate the blood, purify the lungs, exercise the muscles, strengthen the nerves, and keep up the vigor and activity of the organs of

the brain. We come now to the most philosophical course of exercising, and by exercise improving, those organs which are the corporeal media of the intellectual faculties. The old school system, even yet with a few exceptions, mocking the rising generation with a stone for bread, makes no provision for the various faculties which constitute the intellect ; the teacher never dreaming of the existence of any other power than the power to remember words without meanings. Mr Wood is one of the few who is aware that the human intellect has other faculties besides the specific one of verbal memory ; and he appeals to a number of these faculties, in what he very properly denominates the explanatory system. But Mr Wood's explanatory system is necessarily but another form of words, in all cases where the ideas of the things explained, have not been previously, or are not at the time, conveyed. Now, these ideas can only be obtained by the faculty of Individuality, and that faculty can only be exercised on its own proper objects, viz. real, tangible, visible, audible, tasteable, smellable, and weighable bodies ; or at least by visible pictures, or visible and tangible models or preparations. This rich stream of knowledge, the importance of which is so little understood, is sluiced off as yet, and does not flow through Mr Wood's school. We may add, that none of the least of the many qualities with which his future pupils from the infant schools will come to him, will be the possession of real ideas of things ; in other words, knowledge, up to a certain point, on which his explanations will tell. His own exhibition of real objects will not, with such pupils, require to be altogether elementary. Museums in aid of education should, like other lessons be progressive.

In the Circus Place School of Edinburgh, this defect, this grand fundamental defect, is partially supplied ; for even there it is not yet sufficiently felt to be vital, to have secured it the prominent, the paramount place in the arrangements. There is a museum of objects, models, specimens and substances ; but it is yet meagre, unsystematic, and unarranged, and is used only as an occasional amusement. The pupils should live in the museum. One half of their time in school should be devoted to constant minute examina-

tion and scrutiny of material things, and investigation of their qualities. Till this is impressed on the minds of teachers as the leading, the vital principle of youthful education, till the museum becomes a business, and not a slight interlude by-the-by, substantial knowledge, and available resource through life, will not be the fruits of education. This important study of things, we have said, has its stages like other studies, from the first presentation of the simplest visible or tangible object to the infant, up to the examination, by the more advanced, of all the self-acting and self-regulating powers of the steam-engine, or the application of the most complicated affinities of practical chemistry in producing useful and beautiful results in the arts of life ; and it is the duty of schools to teach *things* in their gradations, according to the pupil's age and capacity. Mr Wilderspin's infant school arrangements in this particular have their full share of that philosophical sagacity which runs through his whole plan. A large provision of real objects is made, which, of course, is always increasing ; and wherever it can be had, the article or object itself is preferred to a drawing or model of it. The reader will at once see that such a museum will consist of specimens of all easily attainable natural productions and substances, mineral, vegetable, and animal, organic, and inorganic, — preserved animals themselves, — plants, — the instruments of the mechanical powers, — simple tools and machines, — specimens of art in manufactured substances, — animal structure and functions, forming the elements of anatomy and physiology, as the basis of a regard to health, — and every thing that can familiarize with the substances of which material nature is composed, with their qualities and relations, and natural and artificial combinations. The phrenologist sees at once what a feast is here for all the faculties which take cognizance of the existences of the material world ; and these faculties, it must be kept in mind, are never more active and appetized than in infancy, when every object is new, and examined with avidity. Forms, sizes, weights, colors, sounds, are all objects of delightful contemplation ; while Individuality is treasuring the combinations of these qualities in individual objects. Then their arrangement, their number, and their place, are likewise marked

as the simplest of relations. Verbal memory is not forgotten; but it is kept in its own place, and rendered a source of pleasure, in combined activity with the other faculties, and never fatigued by that undue, and almost exclusive exercise to which it is doomed in other schools. Under the faculties named come the first rudiments of arithmetic, geometry, and geography, for which there are contrivances which call the whole of these faculties into activity, and produce, in an incredibly short time, the most surprising results. Letters and reading are acquired as a mere instrument, as they are, almost by-the-by; while the elements of writing (on slates) may likewise be insinuated instrumentally.

The faculty of Eventuality, or the cognizance of all that happens, — in other words, the faculty of history, from the falling of a child on the school-room floor, up to the fall of an empire, opens up, it need scarcely be said, a boundless field of delight; and suitable provision is made for it in Mr Wilderspin's *Infant School System*. Scripture history is conveyed by extracts printed on boards, each illustrated by a colored engraving; thereby exercising at the same time the other knowing faculties already enumerated, and aiding the memory. Profane history is also taught in the same way. Stories, narratives, and anecdotes are told; and it is only necessary to witness the school proceedings to be convinced that these narrative appeals to Eventuality are a source of intense delight as well as improvement. We shall presently see when we come to the feelings, how these, too, are combined with the exercises of the intellectual faculties.

But a portion of yet higher intellectual power is possessed even by infants; and, although destined by nature for its highest activity in maturer years, shows itself in the youngest, and may with great advantage be moderately exercised by the *Infant School* teacher. The relations of comparison, analogy, and difference, and of cause and effect or necessary sequence, must often occur to infants in the simplest junctures of their lives. They may and do acquire clear notions of simple metaphors and allegories; and in so doing, acquire the power of *discriminating* these from the literal ideas borrowed. They will understand illustrations taken from similitude

and analogy, and will use them themselves ; while they can see that certain consequences will follow from certain conditions premised, and that to expect any other result would be absurd. In short, all occasions where they are called upon to use discrimination and good sense, will exercise these reflecting faculties ; and blunders here will occasion laughable incongruities even to an infant's apprehension ; nay, some of their heartiest bursts of laughter (for this source of happiness is not only not denied, but offered them by a cheerful and humorous teacher,) are elicited by each others' *non sequiturs* and inconsequential absurdities, and their own.

Thirdly, Infant education on Mr Wilderspin's plan is in harmony with the MORAL LAWS of Nature.

All who know any thing of this system must be at once aware that its end and object — its grand novelty, is to impart moral improvement to the pupils ; and that the intellectual exercises themselves, which are only accessory, all bend towards that end. It is evident that there is no *necessity* to commence intellectual training so early as two years old. This might be begun as well any time before eight or ten ; but moral training cannot be begun too early, and in many cases is next to impossible, at least with the lower classes, after six years of age. It is therefore self-evident that such early schools are, and must be, schools for moral training. This is the view, — the new view — which it is the most difficult to impress upon the public. A positive institution for moral training is a new idea to them. With them education, at least of the humbler classes, never meant more than reading, writing, and accounting ; during which process, as they have never doubted, the moral improvement creeps on incidentally. Lessons of morality are read and spelled, and maxims and proverbs fill up the writing copy-book ; and what more would you have ?

Phrenology has made the truth known, that the feelings depend upon portions of the brain distinct from those portions through which the intellect is manifested ; and that they operate directly upon their appropriate objects, or rather are excited by their appropriate objects, using the intellect as a means of obtaining the gratifications they desire. Precept approaches the feelings through

the medium of Language only ; while example appeals to them directly, and is proverbially of more efficacy. But actual exercise strengthens the part of the brain devoted to the moral faculties, just as it strengthens the nerves and the muscles. In order to exercise the moral faculties, human beings must be assembled ; for the moral faculties of Benevolence and Conscientiousness have reference to our fellow-creatures. It is in community, too, that the selfish feelings must be restrained, and the social brought into active exertion. This is done by encouraging *actions* under their impulse. When a child comes to the Infant School, he most likely brings with him his full share of that engrossing selfishness which characterizes childhood ; and which, in the lower ranks, has never been even attempted to be counteracted or regulated. He will gratify every impulse of the moment, however it may incommode or annoy his neighbors ; and if thwarted, or even opposed, he will manifest his temper in Self-Esteem, Combativeness, and Destructiveness, and, to the amount of his little power, will revenge himself. He will, of course, seize by violence, if he is a bold child, and appropriate the toys and the eatables of his companions ; or, if he is timid but cunning, he will steal and secrete them. In the play-ground, it may suit his Destructiveness to throw down his playfellows, or their little buildings ; a boxwood edging, which keeps the rest of the children off the flower-borders, is no barrier to him, and he hastens to make his foot-mark on the dressed mould. The flowers are irresistible, and, if permitted, he revels among them and plucks to destroy them ; while the cherries and currants on the walls are rifled and devoured. Now, this is the character which would have remained with the individual through youth to manhood ; its external manifestations might be restrained by the laws of the land, or by a prudential regard to character ; but the whole inward man will be selfish and anti-social, without the consciousness of any thing like moral or religious sentiment, either to regulate the feelings or guide the actions. The little barbarian is well watched by the teacher, and, by management, is made to reap some degree of suffering directly from each of his acts of selfishness, injustice, fraud, violence, or cruelty. He feels

himself, for one thing, the object of the general disapprobation of his playfellows, — a predicament which will sorely afflict even an infant, in whom the faculty of the Love of Approbation is often more active than in after life. This feeling alone, in the majority of cases, will bring him into harness, and qualify him for farther application of the moral system. The process is shorter the younger the child at his introduction. A child who has passed four years, or reached five, is not so easily led right by the already tamed subjects, and requires a little of the strong hand, proportioned to his own manifestation of violence and obstinacy. It is therefore that Mr Wilderspin never ceases to impress the practical truth, that the younger the infant, if it can just walk along, the fitter for the Infant School; just as the sappling is more easily trained by the gardener, the more tender it is. Children even under two years old can *act*, although they cannot speak. They can understand what is said to them, and can be trained to act gently and kindly, as easily as violently, and be brought to a considerable advance in obedience. Mr Wilderspin exhibited a creature of fourteen months at the Waterloo Rooms, who obeyed the word of command with the rest; did not once cry during two hours; and kept its seat and did its part like the oldest present. Vices and crimes, he adds, are acts not words; and the acts cannot too early be guided in the right direction. The earlier, the fewer obstructions; the child believes and imitates all it sees or hears, and can be moulded as the instructor pleases.

Precept is not neglected. It flows from the teacher's lips, and, taken from the rich stores of Christian morality, adorns the walls of the school-room in large letters, wherever the eye turns. Yet precept does not precede, but follows the practical morality, which is evolved in the experience of the little community. Example, too, with all its sympathies, is a powerful instrument in the teacher's hands. In himself, and the mistress, even an approach to bad temper, violence, or unkindness, must never be manifested; and justice must never be sacrificed, in one iota, to any temporary advantage. Benevolence must be positively and practically manifested in love and kindness. The main spring

of the institution is LOVE, not fear; and all the ways in which love may be manifested, ought to be studied by the instructor. The children are then ready for the practical part of their moral exercise. In the play-ground they form a world in miniature, and it is there, if they are naturally unkind, coarse, insolent, cruel, and unjust,—or benevolent, humble, humane and conscientious, that they will shew themselves. There, however, they are scrupulously watched by the teacher's eye, which, it is a vital principle of the system, is never for one instant to lose sight of what is passing in the play-ground: he is carefully, but not too obviously, observing every occurrence where justice and generosity may be encouraged, and selfishness repressed; where obligingness, and even politeness, may be called forth, and coarseness and rudeness discountenanced.

No instance, however trifling, is too insignificant for inquiry. A quarrel between two infants is not got quit of by dismissing or punishing both. In most cases great injustice may and will be done by this. The matter is probed to the foundation, and this is done in presence of the whole pupils, who sit as a jury upon it, and rarely fail to take the just view of the occurrence. Their award has a much more powerful practical effect than the master's would have; the mere publicity of the trial is, in most cases, sufficient punishment to the offending party; and concession and reconciliation are recommended with a unanimous voice. If any thing beyond is voted, it is a trifling pat on the hand, very temperately given, rather to mark that punishment was incurred, or merited, than inflicted. Respect for property is practically inculcated. The most insignificant deviation, or slip in this particular, is seriously investigated. Instead of removing the temptation, it is, in some degree, rather put in the way; for it is but a negative honesty which abstains from taking what is put beyond reach. The child is accustomed to see everything belonging to the school, and to its companions, unguarded and unconcealed; and amidst temptation, and with every opportunity, is habituated to keep its hands from touching, and even its heart from coveting, what is not its own. No part of the training is more truly gratifying than this.

The children of some of the lowest classes in London, in numbers of 200 and 300, have come as a matter of course, to that degree of respect for others' property, that Mr Wilderspin has seen not only the new brought dinner placed fearlessly on the shelf, for its appointed hour, but the crusts in the little basket become hard, if unconsumed by the owner ; none of the others even dreaming of putting a hand to the remnants, however ill-supplied they may be themselves.

This practical exercise of Conscientiousness, when compared with the juvenile depredations, in which, in the hands of older offenders, such infants are too often engaged, is itself sufficient to recommend the system to every friend of humanity. It is not pretended, that among such numbers as 200 or 300, there may not be occasional manifestations of the lower propensities in temporary predominance over the higher feelings, and Mr Wilderspin narrates some instructive examples of these.

It may happen that little John has built a structure with the wooden bricks, which constitute the only playthings of the establishment, in order to exercise Constructiveness. The finished operation is espied by Peter, and, it may be, envied. Being destructive as well as self-esteeming, he approaches, and by a sly touch of his foot, overthrows the building. John, perhaps, is patient, and with a gentle reproach, merely sets himself to build up the house again; or, he is a fiery child, and gives Peter a blow on the face. The teacher has seen the whole transaction. The most guilty, as he always finds to be true, complains first, and clamorously. This does Peter, loudly lamenting his slap on the face, but carefully concealing his intromission with the brick-building.

The bell is rung for a jury trial. Peter emboldened, repeats his charge, and the jury agree that it was very wrong in John to slap Peter on the nose. But it is stated by the master, that all such questions have two sides, should not John be heard? The justice of this is unanimously allowed; and John, for the first time, lets out the fact that Peter kicked over his octagon. An instant reaction takes place in his favor, and Peter when asked if he kicked over John's octagon, unwillingly admits the

fact, but pleads that he only gave it *one* kick ;—to which he receives the reply that he only got one knock on the nose. The verdict is now against Peter, but as it is the general opinion, that he has already been punished, *the children of the jury* themselves propose that the party shall kiss each other, and return to the play-ground with their arms round each other's neck.

Many such instances occur ; and it is the soul of the system, that none of them are passed over without investigation and adjustment. The too common nursery practice, is to presume faults on both sides in all differences, knock the heads of the parties together, and there is an end. But Mr. Wilderspin holds that, in the majority of cases, gross injustice is done by this method to one party ; and, moreover the impression remains with the children themselves, that although there may be moral distinctions, nobody cares for them.

In the play-ground spontaneous kindness is encouraged, and the children shown how it can be easily manifested. If a child falls, another will run to help it up, and comfort it : the boys are accustomed to treat the girls gently and courteously ; and all are habituated to acts of kindness, preference of others, respectfulness and politeness ; so that not in name or show, but in reality, the little community, of which many of the individuals sleep each night in homes comfortless, with selfishness, coarseness, and often with vice, spend the day in a moral atmosphere, which even more elevated stations of society do not yet breathe, and which will invigorate their moral constitution, insinuate its influence into their yet unpurified abodes, and transmit a degree of moral health to the next generation, which there exists not yet the means of estimating.

Besides Benevolence and Conscientiousness, which are exercised in relation to their fellow-creatures, the children are exercised in another sentiment with which their Creator has endowed them, namely, Veneration. This leads their minds to himself as the source of all they are or hope to be. The exercise of the two first faculties constitutes obedience to the precept 'to do justly and to love mercy : ' the exercise of the last is 'to

walk with their God.' To 'walk humbly' is to subject Self-Esteem, the abuse of which is pride, to the supremacy of Veneration. To walk with God is to obey his will, and that will is made manifest both in his word and in his works. No opportunity is lost in the Infant School of connecting the thing exhibited, the effect produced, or the happiness enjoyed, with the great Author of all ; and the faculty of Wonder, ever active in infancy, is called in to assist the sentiment of Veneration, that the mind may adore and love the Creator. Much more may thus be done in the inculcation of a sound natural religion—the best foundation for revealed,—in the infant mind, than we are aware of. Of Revelation, Scripture history with a moral reference, and Christian precept practically applied, is all that Mr Wilderspin recommends for infants so young as the pupils of an Infant School. Points of doctrine and creeds, in which Christians disagree, are wisely excluded ; first, because they are quite above the comprehension of infants under six years old ; and, secondly, because they would tend to limit the school to the denomination which approved, and shut the doors against the children of all who dissented from the particular creeds. The school established at Edinburgh is upon this extended principle ; and the children of many denominations meet harmoniously within its walls.

In addition to a sensible and efficient provision for the early training of the moral and religious feelings, the sentiments which lead to refinement are not neglected. Taste in dressing up and adorning the play-ground is exhibited to the children, and an interest in neatness and even elegance encouraged. This, including habitual cleanliness and delicacy, will greatly diminish the coarseness of humble life, and materially add to its happiness. Why should the pleasures of Ideality be denied to the poorer classes of our countrymen. If it is said their time is too much devoted to labor to render it possible for them to enjoy even the most moderate and humble refinement, we would answer, that it is a deep-seated vice in the constitution of society, that the lower ranks are denied leisure for all intellectual or refined recreations. Finally, great care is taken to meet and counteract all habits and

prejudices which degrade the lower classes and retard their improvement. Abhorrence of drinking spirits is prospectively founded, and all its grievous consequences are rendered familiar to the habits of thinking, long before the time when the practice is begun. Superstitious hopes and fears are prevented, and their grounds removed : all idea of witches, ghosts, and goblins, is scouted by the pupils of an Infant School, and darkness, to their apprehension, makes no change on nature beyond the absence of light, and has no terrors in it to the rational mind ; while the absurdity and mischief of all charms and gambling chances, and fortune-tellings is habitually exposed, and happiness and prosperity shown to depend on industry and moral worth alone. In short, all hurtful prejudices with which the philanthropic legislator so much complains that he is forced to contend, in his endeavors to better the condition of the lower orders, are as much as possible prevented, by imbuing with juster notions the innocent mind, yet free to receive them.

One point yet remains, — one on which turns a material lesson to other schools, and it is this : while every means is employed to exercise and train the social feelings, every practice is scrupulously excluded which shall counteract this blessed purpose by fostering the selfish propensities. Of these, two of the strongest are Self-Esteem and Love of Approbation. The proper use of both faculties, in conferring self-respect and regard to reputation, is carefully inculcated and habitually practised. The pupils are trained to be above doing a mean action, and to have a proper value to what is thought of them by others ; but neither feelings, both being so apt to run into abuse in pride and vanity, are pampered by places and medals, by the glorying of exaltation, and the incense of applause. The infant system is a beautiful proof of the soundness of our reasoning, when treating in this part of Mr Wood's system ;* and to that reasoning we must now content ourselves with referring our readers. Such is the delightful exercise of higher and happier feelings in the Infant School, and of a combination of intellectual powers all contributing pleasure, that *place-taking*, with all its van-

ities and repinings, would be absolutely a useless incumbrance, an imposthume on the structure, a clog to the wheels of the infant system. It is demonstrated to be unnecessary; and if any thing were yet wanting to complete our admiration of the entire philosophy of Mr Wilderspin's whole system, it is this admirable negation, in which he has the proud distinction of standing nearly alone. How it will degrade the children of an Infant School, to make them place and medal hunters, when they come to more advanced schools than that which they have left !

We have now completed our phrenological analysis of this beautiful system, and we have found every part of it to stand the severest test of the science. We have not detected a defect,—not a single aberration from nature ; but, on the contrary, we find Mr Wilderspin, with a precision which he alone has attained, and which, considering his opportunities, looks like a special gift of God to an individual for a great end, calling into exercise, and thereby giving delight to, we may say, **THE WHOLE** of the faculties, moral and intellectual, of the human mind, and thereby dispensing to the young a sum of substantial happiness, which it forms the main object of our own labors to demonstrate may be enjoyed, on the same terms, by all ages and conditions of human beings, to the incalculable improvement of the lot of humanity.

It is worth while, in conclusion, to enumerate the phrenological faculties which Mr Wilderspin's system, on the one hand, exercises and strengthens, and, on the other, regulates and restrains,—and all practically, by example and positive exercise. It exercises Love of younger children, Adhesiveness, Constructiveness, Benevolence, Conscientiousness, Veneration, Firmness, Ideality, Wonder, Hope, Imitation, Mirthfulness, Individuality, Form, Size, Weight, Coloring, Order, Locality, Number, Time, Tune, Eventuality, Comparison, Causality, Language. It regulates the appetite of eating and drinking,* Combativeness, Destructiveness, Acquisitiveness, Secretiveness, Self-Esteem, and Love of Approbation. If to this is added, that it watches, what do occur in infants oftener than might be supposed, indelicacies arising from a premature development and activity of the cerebellum ; it is actually true

* Alimentiveness.

that the infant school system has relation to ALL the faculties yet known to belong to man. How little was all this suspected by a school-master in a small town, who had taught reading and writing to older children ; but was willing, as he told Mr Wilderspin, to *condescend* to teach the intended infant school !

ARTICLE VI.

Journal de la Société Phrénologique de Paris. Tome II. No. V.

[From the Edinburgh Phrenological Journal, No. XLII. Art. VI.]

[ONE of the means, we do not say *arts*, by which the opponents of Phrenology, in this country, endeavor to check its progress, and especially to shake the faith of those in the science whose opinions rest upon *authority*, and not on *observation*, is that of representing Phrenology as in a state of decline abroad, particularly among distinguished physiologists ; — as a matter that, like other delusions, has had its day ; and that, therefore, all idea of its being either useful, or true, even, being abandoned by men of science in Europe, it is ridiculous for us, *at this time of day*, to pay it any other attention than we pay to any other dead ; viz. to see it decently inhumed, and a brief ‘HIC JACET’ cut upon its cenotaph. We say, in this connection, *cenotaph* ; for, as our adversaries will have it that Phrenology has never had a substantial being, but has existed only in imagination, it is obvious that its burial-place can have *no body* in it, and, ergo, it must be a cenotaph, —

‘An empty grave, with but a name above.’

But, from the article which follows, it would appear that its death is as imaginary as its sturdiest enemies would have us believe its life has been. We insert the article here, partly to sustain the author of the piece entitled ‘*The Last Death of Phrenology*,’

which we have just served up for our readers, and partly to show the public, from the records of the Phrenological Society of Paris, that there is in Phrenology that measure of inherent vitality, that, notwithstanding all the killings it has undergone, it will not *stay killed*. — ED.]

WE are somewhat in arrear with our notices of the French Phrenological Journal, partly from the later numbers not having been received till some months after they were due, and partly from the urgent demands recently made upon our space. It is with pleasure that we now resume the consideration of the labors of our Parisian brethren, and congratulate the conductors of the Journal on the regular advance which its contents are making in value and interest. In the introductory notice to this number, it is stated that the causes which prevented the regular appearance of the Journal during the disastrous year 1832, (when cholera raged in Paris,) being now removed, the conductors have taken the most efficacious measures to cancel the arrears. ‘We have,’ they say, ‘immense materials in hand, and, by active communications with the principal foreign Phrenological Societies, shall enrich ourselves with the fruits of their discoveries and labors.’

Upon the 22d of August, the anniversary of Dr Gall’s death, the Phrenological Society of Paris holds an annual meeting, at which are reported the transactions of the previous year, the losses sustained, the acquisitions made, the state of Phrenology at the time, and the evidence afforded by lately received busts in confirmation of the principles of the science. To these annual meetings the public are invited, and on each occasion a large assembly has come forward. Last year, the Hall of St John was early filled by a numerous auditory; among whom were the Prefect of the Seine, — several members of the Institute and Royal Academy of Medicine, — several Professors of the *Ecole de Médecine*, French and foreign savans, advocates, and magistrates, — and also a great number of ladies. The business was commenced by a discourse from the president, Professor Bouillaud; after which, a summary of the proceedings of the Society during the year 1832-3,

by Dr Casimir Broussais, the secretary, was read. Both of these are printed in the Journal, and contain many interesting details.

In Professor Bouillaud's discourse, we find some very pertinent general observations on the principles of Phrenology, its practical utility, and the treatment which Gall received from his contemporaries, particularly Napoleon and Cuvier. 'The opposition of these two great men,' he says, 'backed as it was by the power of ridicule so terrible in all countries but particularly in France, arrested, so to speak, the course of the new star which had just appeared above the scientific horizon. Forthwith the journals, schools, and academies, formed a sort of Holy Alliance against the system of Gall; and all would have been over with that system long ere now, were it possible for the triumph of any Holy Alliance over truth, phrenological or otherwise, to continue forever. This conspiracy of influential men and associations against a truth may indeed delay its progress and retard its development: but there comes at length a time when enlightened public opinion takes truth under its powerful protection; and to the sway of that ruler of the world every thing, not excepting even the authority of a Napoleon and a Cuvier, ultimately yields. But what concerns us most at present is, that the heads of Napoleon and Cuvier are, if I may use the expression, the best arguments which one could desire for refuting the opinions of these illustrious men; and now, when both have descended prematurely to the tomb, Phrenology, which is not the last to pay a just tribute of admiration to the vast and lofty powers with which they were endowed, asks no other revenge for the injury which they inflicted on it, than that of making their heads serve to demonstrate the very principles to which, during life, they were opposed. Glance, now, at these busts,' continued Dr Bouillaud, pointing to the casts on the table, 'glance at these busts, and, however limited your acquaintance with Phrenology may be, you cannot fail at once to perceive not only that they prove by their volume the law that, *cæteris paribus*, power of mind is in proportion to the size of the brain, but also that, in the difference of their configuration, may be found the cause of the chief differences presented by the characters and talents of these two illustri-

ous individuals. This head,' pointing to that of Cuvier, 'ought to belong to the Aristotle of France ; that,' pointing to Napoleon's, 'suits better the modern Alexander.'

The Professor is of opinion that, as Phrenology is now settled on a secure basis, its votaries ought seriously to devote their attention to its progress and improvement alone, and to the fittest means that can be devised for diffusing and rendering popular the facts with which the science is already enriched, and is daily adding to its store. It is with the view of contributing in some measure to the accomplishment of this important object, that the Parisian Society, besides instituting their Journal and public courses of lectures, has appointed the great annual meeting already mentioned to be held.

In the Summary of the Society's proceedings, various important subjects are introduced. The writer, Dr Broussais, begins by noticing a few of the numerous phrenological facts which had been brought before the meetings. After alluding to several cases having reference to the organs of reproduction, reported to the Society by MM. Tanchou, Sorlin, Bourjeot Saint Hilaire, &c., and which confirm the ideas of Gall as to the functions of the cerebellum, he states the following particulars of a case which had occurred in the practice of Professor Bouillaud. That physician attended a young man ill of a violent fever, occasioned by inflammation of the bowels. The patient's head presented a considerable development of the organ of Tune, and he sang incessantly during his fits of delirium, with remarkable force and correctness ; while of no other intellectual faculty was any activity apparent. During his periods of calm, he had no recollection of what had occurred during the paroxysms. There is next mentioned a letter from Mr Deville, of London, relating the case of an individual whose head had presented different degrees of cerebral development at different periods of his life. At first he was abandoned to himself without education, and in circumstances calculated rather to impair than to develop his faculties ; afterwards, he was placed in a situation favorable to their development ; and, finally, several years later, he relapsed

into his original condition, and anew exhibited deterioration of mind. His brain presented corresponding phases of development and degradation.—Dr Broussais goes on to say that Dr Lacorbère, in a recent visit to Germany, had successfully applied phrenology in the examination of several patients in a lunatic asylum, and that the accuracy of his phrenological judgement had made some proselytes in Hamburg. * * *

A work on the Seat and Nature of Mental Diseases, by Dr Bottex, physician to a lunatic asylum at Lyons, is mentioned with approbation. That writer demonstrates, that insanity is not a disease of the soul or mind, but an affection of the organic structure ; that its essential seat is the brain ; and that the morbid condition of that viscus varies according to the species of mental derangement : and he maintains, that, without the aid of the principle that the brain consists of a plurality of organs, it is impossible to account for many phenomena of insanity.

Among the skulls and casts presented to the Society, and for most of which it is indebted to the active zeal of M. Dumoutier, Dr Broussais notices that of a negro, called Eustache, of which a duplicate was lately added to the collection of the Phrenological Society in Edinburgh (Bust No. 159), by its zealous secretary, Dr William Gregory. On the 9th August, 1832, this negro, when sixty years of age, obtained the *Prize of Virtue* from the Institute, on account of the devoted attachment which he had displayed, in St. Domingo, towards his master, M. Belin. By his address, courage, and devotion, this gentleman, with upwards of 400 other whites, was saved from the general massacre, and the fortune of Mr Belin was several times preserved. ‘The idea of murder,’ says the reporter to the Institute, ‘did not associate itself in the mind of Eustache, with that of liberty. Placed among companions endeavoring to obtain, with the torch and the dagger, their bloody emancipation, and seeing his masters in danger of being murdered amid the ruins of their burning dwellings, he hesitated not a moment....Incessantly occupied in warning the inhabitants of the conspiracies formed against them (but without revealing the names of the conspirators,) and in devising a

thousand stratagems to enable the proprietors to unite and strengthen their position, so as to make the insurgents abandon the idea of attacking them,—he consorted with the Negroes during the day, and in the evening went to give warning to the whites.' At Paris, where, we understand, he now resides, Eustache is always busy doing good. 'He never wishes,' says Dr Broussais, 'to keep anything for himself; the profits of his industry, and the rewards which he has obtained, being on all occasions employed in relieving the miserable.' He has always preferred to remain in the condition of a servant, in order that he might turn to account his skill in cookery, and enable himself to do good to his fellow-creatures. The following characteristic trait is quoted from the report to the Institute before referred to. At Port-au-Prince, Eustache often heard his master, who was an old man, bewailing the gradual weakening of his sight. Now had Eustache been able to read, he might have whiled away his master's long and sleepless hours, by reading the journals to him. It was therefore a matter of deep regret with him that he had never been taught to read; but this regret did not long continue. He secretly applied himself to study; took lessons at four o'clock in the morning, in order that the time necessary for the performance of his regular duties might not be encroached upon; speedily acquired the wished for knowledge; and, approaching the old man with a book in his hand, proved to him, that if nothing seems easy to ignorance, nothing is impossible to devotion. We are sorry that so few particulars relative to Eustache are given by Dr Broussais. Though a Parisian audience may with propriety be addressed with—'Je ne vous raconterai pas sa vie; vous la connaissez tous; vous en avez tous entendu ou lu le récit;'—distant readers, who do not possess these advantages, are left very much in the dark. The bust of Eustache exhibits a prodigious development of the organ of Benevolence; and we entirely concur in the statement of Dr Broussais, that there is in the collections no specimen which can be in this respect compared with it. 'The organ,' says he, 'is so large, that, though I were unacquainted with Eustache, I

should, at the sight of such a head, exclaim—here is monomania of Benevolence. But I am better pleased to sum up, with M. Brifaut, his life and his character in two words—*incorrigible generosity*.

We have measured the cast, and subjoin a note of its dimensions. It is proper to notice, that there was no hair on the head when the cast was taken.

	Inches.
Circumference,.....	22
From Individuality to occipital spine, over top of head,.....	14½
From ear to ear, over top of head,.....	14
From Individuality to Philoprogenitiveness,.....	7
From ear to Philoprogenitiveness,.....	4
..... Individuality,.....	5½
..... Comparison,.....	5½
..... Benevolence,.....	6
..... Firmness,.....	6
..... Destructiveness to Destructiveness,.....	6
..... Secretiveness to Secretiveness,.....	6
..... Cautiousness to Cautiousness,.....	5

It will be obvious to every phrenologist, from the foregoing table, that the head of Eustache is of very considerable size. In this respect, as well as in its form, it has quite the appearance of a European head. The organs of Veneration, Firmness, Philoprogenitiveness, Comparison, and Causality are large, though not equal to Benevolence; Adhesiveness, Combativeness, Destructiveness, Secretiveness, Cautiousness, Conscientiousness, and Love of Approbation, rather large, or large; Imitation and Wonder, where the head descends rapidly on both sides from Benevolence, moderate, or rather full. There seems to be a very fair development of the organ of Language. Benevolence rises to a great height above Comparison. A full-sized view of this head is given by Dr Vimont, in the Atlas to his Treatise on Human and Comparative Phrenology, and we hope to see, in the second volume of that publication, farther details respecting Eustache.

Dr Broussais goes on, in his Summary, to offer some remarks on the heads and characters of Carême, the Baron de Zach, and four musicians — Weber, Kreutzer, D'Héroid and Lefebure.

The mask of Weber indicates a large development of Tune, Ideality, Benevolence, and Imitation. Of Lefebure we are told, that, 'though not more than fourteen years of age, he has been for several years the organist of St Roch, and his head presents the forehead of an intelligent man, with the organs of Tune and Constructiveness in particular very large.' A duplicate of this cast was presented by Dr William Gregory to the Phrenological Society, Edinburgh, and is No. 84 of the masks.

The heads of four criminals, Mabile, Descourbes, Bénéoit, and Régès, are next adverted to. 'In all, the predominance of the sentiments and passions over the understanding is apparent, — *têtes instinctives, têtes animales.*' Dr Broussais then states some particulars regarding nine suicides, with respect to one of whom, the widow Landon, two interesting documents are given entire: the first, M. Dumoutier's remarks on her dispositions, founded on an examination of her head; and the second, an extract from the register of M. Gourlet, a commissioner of police, confirming the accuracy of M. Dumoutier's statements. The following table, showing the development of several organs in the heads of the nine suicides, was framed by MM. Dumoutier and Broussais. Their names are, 1. St-Simon; 2. E——; 3. C——; 4. Thuillier; 5. Landon; 6. D——; 7. Marguaine; 8. Granié; 9. Michelet.

	1.	2.	3.	4.	5.	6.	7.	8.	9.
Destructiveness	18	20	16	20	16	20	20	20	20
Firmness	10	18	18	20	18	10	20	22	18
Combativeness	16	20	19	10	20	20	20	22	18
Love of Life	6	4	10	6	10	4	10	10	4
Hope	10	6	4	4	4	10	10	10	4
Cautiousness	14	20	18	10	16	16	10	3	20
Love of Approbation	10	10	20	20	20	18	18	20	18

SCALE. — 2. Idiocy; 4. Very small; 6. Small; 8. Rather small; 10. Moderate; 12. Rather full; 14. Full; 16. Rather large; 18. Large; 20. Very large; 22. Enormous.

The case of a woman called Denise, detailed in the *Annales de la Médecine Physiologique*, (Oct. 1832,) is taken notice of, as furnishing a curious example of insatiable appetite for food. In infancy she exhausted the milk of all her nurses, and ate four times more than other children of the same age. At school she devour-

ed the bread of all the scholars ; and in the Salpêtrière it was found impossible to satisfy her habitual appetite with less than eight or ten pounds of bread daily. Nevertheless, she there experienced, two or three times a month, great attacks of hunger (*grandes faims*,) during which she devoured twenty-four pounds of bread. If, during these fits, any obstacle was opposed to the gratification of her imperious desire, she became so furious, that she used to bite her clothes, and even hands, and did not recover her reason till hunger was completely satisfied. Being one day in the kitchen of a rich family, when a dinner party was expected, *she devoured, in a very few minutes, the soup intended for twenty guests, along with twelve pounds of bread!* On another occasion, she drank all the coffee prepared for SEVENTY-FIVE of her companions in the Salpêtrière ! Her skull is small ; the region of the propensities predominates ; and the organ of Alimentiveness is largely developed.

The Society, as above hinted, has established public courses of lectures on Phrenology. These are delivered by M. Dumoutier, and the success of the course preceding the annual meeting is stated to have been *vraiment extraordinaire*. Two other courses had been given ; one by the same lecturer, and the other by Dr Fossati. ‘But it is not in these courses alone,’ says Dr Broussais, ‘that Phrenology has found defenders and representatives : our science has penetrated into the Faculty of Medicine ; homage has been paid to it within the precincts of that institution ; professors of the *Ecole* have spoken of it with the seriousness and attention which it merits ; and one of them, the elder Broussais, has even given an exposition of its principles in several lectures devoted exclusively to this object. It is but a few days since a young physician, M. Lacomme, there based his thesis upon Phrenology. In a word, we have on all sides made converts to our opinions.’

[The rest of this article, less interesting than what we have given above, our narrowing limits compel us to omit. — Ed.]

ARTICLE VII.

Examination of Heads.

WHILE we congratulate the lovers of truth on the spread of Phrenological Science, we should be wanting in our duty to the subject, were we to neglect noticing, occasionally, the obstacles which its indiscreet friends throw in the way of its progress. We speak it in kindness to those who may be the subjects of our remarks — that there are many abroad teaching the public phrenology, and making application of its principles — who stand in eminent need of instruction themselves. They read a few pages of a work on the subject, and suddenly appear as men full of wisdom and experience. Whether they act from disinterested motives, and err with regard to their own abilities, or come out as earnest disciples with a view to gain, is a matter of no consequence to us. We have no hostility to either source of action, provided it be sustained by prudence, skill, and knowledge. But, we cannot sanction the teachings of one, from whatever motive he may act, who has not thoroughly prepared himself for the task which he undertakes. Phrenology is still a new science; and the fact that it is so, renders the task of lecturing upon it difficult.

The most prevailing evil, however, at this time, is the practice of examining heads; not of well-chosen cases, where examinations may be of use to the science, but indiscriminately. Every head, whether common or uncommon, respectable or degraded, receives a formal judgment. Not content with satisfying a few inquirers who may have had their curiosity excited by hearing lectures, — there are individuals who make it their business, have their shops, and receive pay for their manipulations, so much *per head*! This practice not only degrades the science, but gives rise to superficial converts, who will be likely to prove obstinate followers of the bad examples which were the means of their conviction. It turns a dignified science into a system of *legerdemain*, and those who are really able to promote the true philosophy of man will be prevent-

ed from investigating the subject, on account of the repulsive appearance of its exterior.

The rule should be, *Examine no heads of living individuals of respectable standing* ; and the exceptions to the rule, — *examinations of well-marked heads, whenever it is evident that the science may be promoted by reporting them, whether in favor of, or adverse to it.* This was the rule of Spurzheim ; and modesty, to say the least, should suggest the proper course to his humble followers. That great man spoke frequently on this subject, and was decidedly opposed to the practice of which we complain. If such was the advice of one who had the advantage of a powerful mind, of deep learning, and thirty years experience, what can we say of him who, inferior in every respect, to a degree which we need not mention, still persists in giving premature opinions on heads, both privately and publicly !

But we are told that many dispute the truth of our doctrines and set us at defiance. Let it be so. When demands are made for the proofs upon which our science stands, let them be answered by stating what *its principles are, and how sustained* — rather than in showing *what phrenologists can do.*

We would not be understood to speak against observation ; on the contrary, we recommend it. But we are decidedly opposed to that *system of observing human nature* which mistakes the means for the end of science, and which tells to the world its discoveries before they are matured.

We make the following extract from the New-York Star, not because we believe it to be true, but to show how an imperfect manipulator may be imposed upon. Whether this statement be true or false, it matters but little with us, so far as we make use of it, as we have known attempts of a similar character, which rewarded their indiscreet authors with similar results :

‘ *A Professor of Phrenology placed in an awkward predicament.* — A rather laughable denouement took place, as we perceive by the Rochester Democrat, at that place a few days since. A professor, and who was literally nothing but a *professor*, who had been delivering a course of lectures, and who had been boasting of having successfully determined, while blindfolded, the character of about 1000 heads, was invited by a wag to accompany him to the jail as a proper theatre for the exercise of his talent. Accordingly, after tying his eyes with a bandage, he was

led into a cell, where were four or five most exemplary and reputable citizens of the town, placed there purposely, on whom the Doctor, presuming them to be felons, pronounced, of course, very learnedly, touching their extensive protuberances of combativeness, acquisitiveness, &c. What was his astonishment afterwards to learn, on the removal of the bandage, the trick that had been imposed upon him. It was considered by the public of Rochester, a complete 'flooer,' and the Doctor was looked upon as 'used up.' When empirics and impostors, for the sake of gulling the public, and fleecing their pockets, meddle with 'edge tools' they don't understand, they deserve to be cut and marked also.

In making these remarks, we allude to no particular individual, but to many of whom we have heard. We respect their motives, but we protest against their practices. We entreat them to desist, and to aid in promoting Phrenology in a way more in accordance with scientific taste.

NOTICES.

PHRENOLOGICAL MAGAZINE. We have just received the first number of a monthly periodical entitled 'Phrenological Magazine and New York Literary Review,' published in Utica, New-York, by G. G. Foster. It is an 8vo. pamphlet of 48 pages, and though we have not read all the articles, of which a good proportion are original and editorial, we have read enough to see that the editor holds the pen of a ready writer, and fears not to speak his mind upon the science, and upon those, who, without the requisite knowledge or powers — except the 'power of face,' go about lecturing and 'examining heads,' at so much apiece.

The contents of this number are as follows. 'The true Philosophy — Outlines of Phrenology — Phrenology and the Ladies — Itinerant Phrenologists — Opinions of Tiedemann and Arnold — Sketch of Dr Gall — Oneida Phrenological Society, and Notices. We welcome this new laborer to the Phrenological vineyard, and bid him God speed.

DR VIMONT. The corresponding secretary of the Boston Phrenological Society has lately received a letter from Dr Vimont, the author of that truly magnificent work on Human and Comparative Phrenology — in reply to the secretary's communication announcing his election as an honorary member of the Boston Society. We cannot deny our readers the pleasure which they will derive from learning, by an extract from a document of so late a date as the 29th of last January, and coming from such a source, that Phrenology is, after all, still alive in France, and apparently doing well.

'Besides the love for study which distinguishes your countrymen, you have an immense advantage over other nations. Deprived of prejudices which have been an obstacle to the scientific researches of celebrated men, you will only have to fight against the insuperable obstacles of human passions. I should be very much surprised, sir, if in a few years the United States were not placed in the first rank of civilized nations, as to the cultivation of Phrenology. For a long time, and under the most absurd of governments, that very important science was almost abandoned in France; but by the influence of new circumstances it has received a great impulse, and one may say that since some years, its progress is extremely rapid; it is even certain that in a very short time it will constitute a part of public instruction.'

THE NEW ENGLAND GALAXY. This paper is now edited by John Neal Esq. and Mr H. Hastings Weld. Mr Neal is a decided Phrenologist, and takes hold of the subject with his usual spirit and ability; but Mr Weld is not prepared to avow himself a disciple of Gall and Spurzheim, and hence the readers of the Galaxy have been treated to an interesting correspondence on the science, between the two Editors. With such acknowledged talents and originality in the editorial department, the Galaxy cannot but be extensively patronised. Mr Neal is one of the most ready and original writers of the age.

A correspondent has promised us an abridgment of Mr Neal's interesting account of the Durham Boy, which will appear in a future number.

PHRENOLOGICAL JOURNAL. And here is just come to hand — a Prospectus for another Phrenological periodical to be published 'semi-monthly,' by a number of scientific gentlemen at Poughkeepsie, New-York. Very well, gentlemen, the more of these periodicals the better, so that they be read and well sustained.

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