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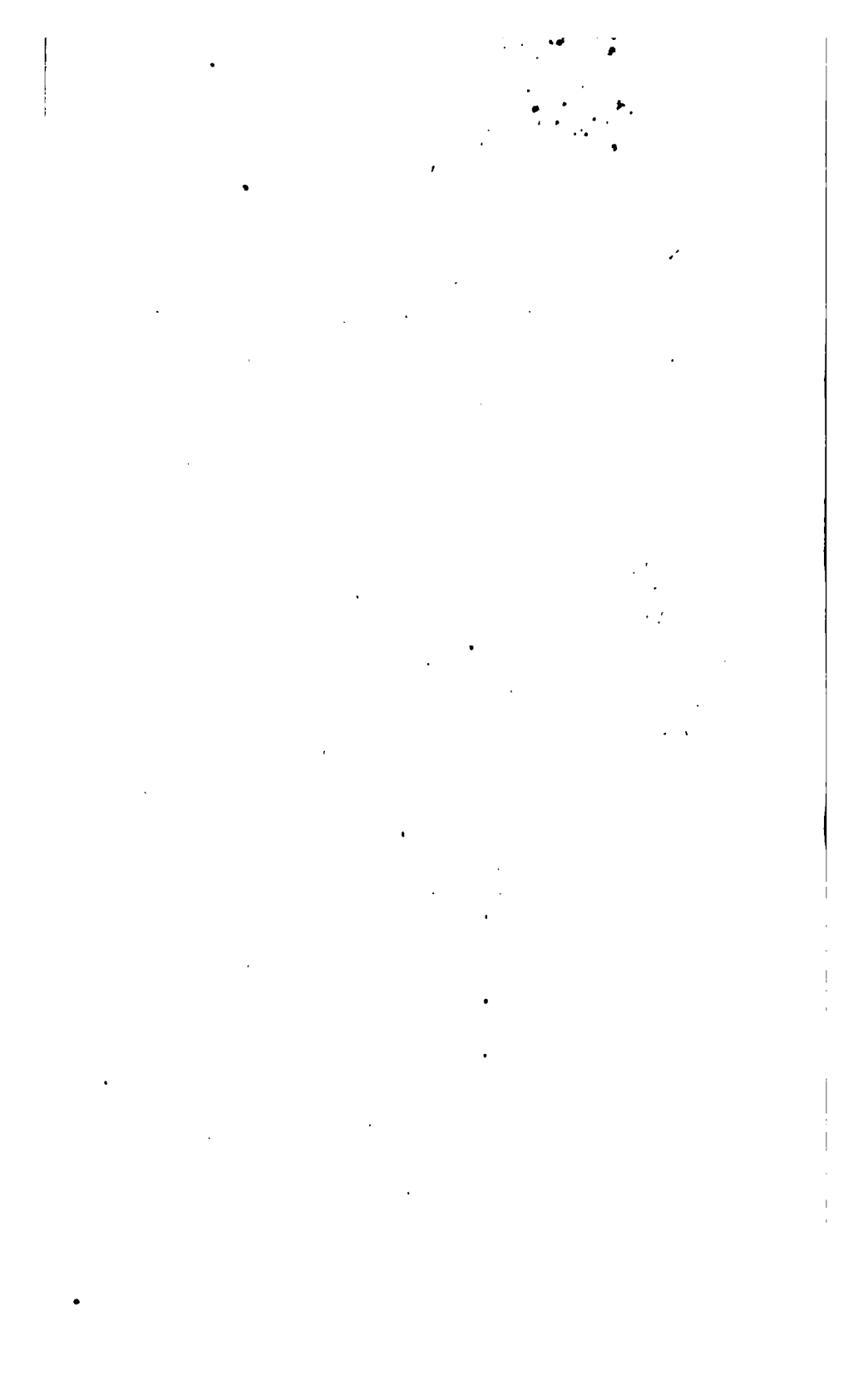
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THE
PHRENOLOGICAL JOURNAL.

No XVII.

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SIR WILLIAM HAMILTON, BART., AND PHRENOLOGY.

**I.—CORRESPONDENCE PUBLISHED IN THE CALEDONIAN
MERCURY BETWEEN SIR WILLIAM HAMILTON AND
DR SPURZHEIM, AND BETWEEN SIR WILLIAM HA-
MILTON AND MR GEORGE COMBE.**

LETTER FROM SIR WILLIAM HAMILTON, BART.

To the Editor of the Caledonian Mercury.

SIR,—The report of Dr Spurzheim's lectures on Phrenology, published in your paper of last Thursday, contains allusions to me of such a nature, that I cannot with propriety suffer them to pass without an immediate correction of their inaccuracy. What Dr Spurzheim may state within the walls of his lecture-room I have taken no opportunity of learning; and I certainly should not have deemed it incumbent on me to notice any observations relative to my proceedings, had these not been thus obtruded on my attention, and published to the world.

Dr Spurzheim complains that I have acted unfairly, in refusing to print the papers against Phrenology which I read before the Royal Society, and in not openly discussing the opinions which I had ventured to attack. Before thus animadverting on my conduct, he was certainly bound to have ascertained the accuracy of his allegations; and he ought therefore to have known, from my correspondence with Mr Combe, (to be read in the Fifteenth Number of the Phrenological Journal,) that, far from refusing to publish these papers, I explicitly declared that I only awaited the decision of the umpires appointed to report in regard to the truth or falsehood of certain essential phenomena,

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in order that both parties might have in common an indisputable foundation of reality, on which to establish or to refute the hypothesis in question. (See p. 404.) If any hardship be felt by Dr Spurzheim at the delay thus necessarily occasioned, this cannot with justice be attributed to me ; but though it would be preposterous, under these circumstances, to publish my argument before the state of the decisive facts on which it proceeds is recognized as correct, it will certainly be admitted that I act with equal fairness and intrepidity, and afford to Dr Spurzheim the most advantageous opportunity of subverting my objections to his doctrine, by allowing, nay urging him to disprove, by a comparison with nature, the positions of fact on which the objections are established. I am willing to join issue with Dr Spurzheim, as with Mr Combe, in periling the whole question on the truth or falsehood of the propositions I am soon to propose. *Res non verba quæso.*

Dr Spurzheim seems to suppose that the objections I alleged against Phrenology were founded, not on sensible appearances, but on speculative opinions ; not on my own observations, but on the authority of others.

It is true, that in the first paper which I read before the Royal Society, in attempting to prove that the consequences of the theory were diametrically opposite to those so fondly deduced from it by its supporters, I only indirectly assailed the doctrine itself, through the logical incompetency of those on whose authority it rested ; and I there endeavoured merely to establish a general presumption, that the same causes of error—the same prepossession, partiality, and enthusiasm—would be found in the constitution of Phrenology to have vitiated the observation of the fundamental facts, which, in their reasonings on its consequences, were displayed by the Phrenologists in the chimerical superstructure reared on so incongruous a basis. I did not attempt to show that Phrenology was false, because it immediately involved the conclusions of fatalism, materialism, and atheism, but that, as the Phrenologists were so egregiously deceived in maintaining that their doctrine supplied the most secure foundation of moral liberty, of the immateriality of mind, and of religion, natural and revealed, we were entitled to infer the probability, that they were equally deluded in the slippery task of authenticating and applying the phenomena which condition or constitute the theory itself. It was only subsequently to the reading of this paper, that I satisfied myself that this analogical inference was correct ; and in the second paper I applied myself exclusively to show, that the determining and integral facts of Phrenology, when not merely selected specialties, were either *petitory* or *false*.

Petitory—Because Phrenology assumes the very facts, of whose existence, otherwise established, it could only, as a legitimate hypothesis, attempt to explain the law. Professing to demonstrate

as its law the co-relation between the two phenomena of *mental manifestation* and *cerebral development*, phenomena which were necessarily supposed cognizable in themselves; Phrenology is compelled, however, to resort to sundry subsidiary hypotheses in order to evince the *reality* of the latter fact, and is only able to equalize them with each other by postulating, in its definition of *development*, the occult quality of *internal structure*, an exploded theory of the *temperaments*, and a baseless distinction between *activity* and *power*. And even in so far as the more discoverable phenomenon of *Size* was allowed to constitute development, though their doctrine was solely a *doctrine of proportion*, the Phrenologists, vacillating at their convenience between the different *standards* of *absolute*, of *relative*, and even of *topical size*, have, to this hour, never yet established on any of these standards a fixed *scale*, in reference to which alone could their statements of comparison be held significant of aught but the fancy of the individual manipulator.

False—Because the anatomical positions which Phrenology assumes, either as the conditions of its proof, or as the most certain of its constitutive elements, were, as far as I could bring these to examination, not only untrue, but even at the greatest possible distance from the truth. Resolved to take nothing upon trust, I had (during the interval between my two papers) looked with some attention both at nature and at books; and, notwithstanding my anticipation, was astonished to find that many facts, lying at the root of the hypothesis, and which the Phrenologists coolly postulated as indisputable, were diametrically opposed to all that nature manifested, and other physiologists had observed. As a merely casual investigator, I was certainly glad to find that my own observations were, in general, confirmed by the concurrent testimony of all impartial anatomists; but I never allowed any weight of authority to supersede a personal examination of the fact. On several points I could appeal to natural appearances alone, and overlooked many statements of the most accurate inquirers, because unable to verify them by any adequate induction of my own.

"We go not to books," says Dr Spurzheim, "for support, but with our five senses to nature; and no king nor emperor, no Hamilton, no Gall, no Spurzheim, can determine what nature will do." No one can assuredly reproach the founders of the new doctrine with any dependence upon authority; but as all anatomists must be wrong if they are right, and as the fate of their hypothesis must hinge on the correctness of its authors, the question is of some interest:—Did Drs Gall and Spurzheim believe always what they perceived in nature, or did they not often perceive only what they were predisposed to believe? To bring this problem to a final issue appeared, however, a matter of no inconsiderable difficulty. These two theorists, as I have elsewhere observed, had for thirty years

been advancing certain statements in regard to the anatomy of the cranium and brain. These statements, in their truth or falsehood, involved the possibility or impossibility of the new opinion; and these statements were, in many instances, precisely the reverse of all that every other anatomist maintained. When the attention of those most competent to judge was occasionally attracted to the theory, the truth of these novelties was of course peremptorily denied. But the confidence with which its authors always asserted the superior accuracy of their observations,—the apparent impossibility of being deceived in what were at once facts of vital importance to the system, and, in most instances, of easy discovery, if not of obtrusive notoriety,—and, in fine, the unacquaintance too generally prevalent upon subjects of this nature,—all contributed to obtain for the fashionable doctrine a crowd of converts, zealous, if not always intelligent, in their faith. *Argumentum pessimi turba*. But if the contradictions of the most illustrious anatomists were either wholly overlooked, or thought sufficiently refuted by the re-assertion of the litigious point by some partial adherent of the system, how was I, a mere anatomical interloper, to hope that any statements of mine, however articulate and correct, should meet with that attention which had not been obtained by the weighty authorities of Blumenbach, Hufeland, Wenzel, Monro, Magendie, Dumoulines, Rudolphi, Flourens, &c.? Confident, however, in the strength of my position, I was persuaded that I had only to constrain the Phrenologists to interrogate nature and to proclaim her answers, to prove, even to themselves, the fallacy of their best-established observations; while a concession of facts extorted from them, in opposition to all their previous asseverations, would at once excite the curiosity of the public, and subvert for ever all confidence in the credit of phrenological experience. This I hoped to accomplish by a mutual reference to umpires; as I was sure that my opponents had, like myself, no other end than the discovery and propagation of the truth. I accordingly proposed to Mr George Combe, (the most distinguished of our Scottish Phrenologists, and who had done me the honour of proposing to reply to my objections against the doctrine he so ably supported,) to bring the whole question to a decision of anatomical fact. “So long,” I observed, “as Phrenology is the comparison of two hypothetical quantities,—a science of *proportion* without a determinate *standard* and an acknowledged *scale*,—so long as it can be maintained, that its facts, even if not assumptive, constitute only a partial induction, which can never represent the universality of nature, I deem it idle to dispute about the applications of a law which defines no phenomena, and the truth of an hypothesis which has no legal constitution. But let us take, not the hypothesis in itself, but the foundations on which it rests,—let us take facts, not of occult proportion, but of palpable existence,—facts which prove, not

"the *probability*, but the *possibility* of the doctrine,—and, on "the truth or falsehood of the phrenological statements in regard to these, I am content to join issue in regard to the credibility of the opinion, and to the confidence that ought to be accorded to its founders. In making this proposal, I concede every thing, and ask nothing in return. I agree to stake the decision of the controversy on your proving, not the *truth*, but the mere *possibility* of the doctrine. In refuting this possibility, I bind myself to prove, not *simply*, that the assertions of Drs Gall and Spurzheim, in regard to the fundamental conditions of their hypothesis, are *false*, but that they are *diametrically opposite to the truth*. My proof shall rest, not only on the concurrent testimony of anatomists, but on the notorious evidence of an extensive induction of crania, previously purged on any general principle you may propose; and I am contented to leave to yourself the nomination of the umpires by whom the result shall be determined."

Mr Combe, as was to be expected, frankly accepted the conditions, but declined nominating the umpires, who were accordingly appointed in the usual way. Dr Scott was named by Mr Combe, Professor Christison by me, and Mr Syme by the two other arbiters. I proposed for their determination the following conflicting propositions:—

I. *Phrenological Proposition*.—In old age the walls of the skull increase in thickness, and the cases in which the cranial bones wax thinner, as the subject declines in life, constitute exceptions from the general rule.

Counter Proposition.—The rule is here the exception, and the exception the rule.

II. *Phrenological Proposition*.—(Maintained by Spurzheim)—Young and adult persons have no cavities between the tables of the frontal bone; and the real frontal sinuses occur only in old persons, or after chronic insanity.

Counter Proposition.—The absence of the sinus in young and adult subjects, so far from constituting the universal law, is a rare, if not a doubtful, anomaly.

III. *Phrenological Proposition*.—Before the age of twelve or fourteen, the frontal sinus never, or almost never, exists.

Counter Proposition.—Before this age the sinus is frequently, if not generally, present.

IV. *Phrenological Proposition*.—The frontal sinuses are rarely to be found in women.

Counter Propositions.—1. These cavities are rarely absent in the female cranium. 2. Even more rarely than in the male.

V. *Phrenological Proposition*.—The sinus, when present, betrays its existence and extent by an irregular elevation of a peculiar character, constituting a bony crest or ridge, or blister, and is distinguished from the forms under which the phrenological organs are developed.

Counter Proposition.—There is no correlation between the existence and extent of a sinus, and the existence and extent of any such elevation, whether superciliary or glabellar:—either may be present without the other; and when both are co-existent, they hold no reciprocal proportion in their dimensions, or in their figure. Neither is there any form of cranial development which excludes the subjacent presence of a sinus.

VI. Phrenological Proposition.—In ordinary cases the sinus only extends an obstacle over two organs (Size and Lower Individuality), or, at most, partially affects a third (Locality).

Counter Proposition.—In very ordinary cases the sinus covers a greatly larger proportion of the supposed organs, and frequently affects more than a third part of the whole thirty-six.

VII. Phrenological Proposition.—The opposite sides of the cranium are in general commensurate; and, when not symmetrical, this inequality is the effect, and consequently the index of disease in the brain.

Counter Proposition.—The opposite sides of the cranium are very rarely symmetrical, very frequently widely different in development; and this disproportion is seldom the consequence of any morbid affection.

VIII. Phrenological Proposition.—The convolutions of the opposite hemispheres of the human brain are almost perfectly symmetrical.

Counter Proposition.—Neither on the upper nor on the under surface of the brain, and in no age or sex of the human subject, have the convolutions of the two hemispheres any reciprocal symmetry, but differ remarkably from each other in figure, connexion, situation, length, and breadth.

Note.—In the brain of the horse, which is adduced by Gall as an example of an *absolutely perfect* symmetry, the cerebral convolutions are also widely dissimilar.

IX. Phrenological Proposition.—The whole brain (encephalon) does not in general attain its full complement of size till thirty, and in many individuals not till forty years of age.

Counter Proposition.—From the age of seven the cerebral mass gains little or nothing in volume; and the increase of the head about the time of puberty, and afterwards, is determined by the greater development of the cranial bones, muscles, integuments, and hair.

X. Phrenological Proposition.—The cerebellum only attains its full relative proportion to the *brain proper*, from the age of eighteen to twenty-six.

Counter Proposition.—The cerebellum reaches this proportion many years before puberty, and even probably as early as three years old.

XI. Phrenological Proposition.—In male animals the cerebellum, proportionally even to their larger brain, is generally greater than the cerebellum of females of the same kind; and

this difference is still more decided in man than in the other species of animals.

Counter Proposition.—The cerebellum of women (and the analogy probably holds true throughout nature) is, on an average, and in *proportion* to their smaller heads, much larger than the cerebellum of men.

XII. Phrenological Proposition.—As the female cerebellum, even in proportion to a lesser brain, is relatively smaller than the male, the ratio of its inferiority in size will be greatly increased, if the two parts are compared directly with each other, according to their absolute proportions.

Counter Proposition.—Though on a smaller head, the cerebellum of women (and probably the same is true of other females, as compared with other males) is, on the average, *absolutely* larger than that of men.

XIII. Phrenological Proposition.—In women, as more frequently actuated by a strong natural propensity to devotion, the organ of Theosophy or Veneration is in general more largely developed than in men.

Counter Proposition.—The manifestation cannot be denied; but those dimensions of the head which determine the size of the supposed organ of religious sentiment are proportionally, even to the smaller size of the female head, much less, on the average, in women than in men.

XIV. Phrenological Proposition.—As the “knowing faculties” are in full energy at a much earlier period than the “reflective,” the lower region of the brow, along which the organs of the former are distributed, is found more largely developed in children than the superior parts of the forehead, in which are situated the organs of the latter.

Counter Proposition.—The manifestation is notorious; but the heads of children are peculiarly and remarkably distinguished from those of adults, by the greater development of the higher region of the brow, as compared with the smaller development of the lower.

In all of these, the Phrenological position (with, perhaps, a single exception) is to be found, virtually or in terms, in the writings of the two fathers of Phrenology. The seventh was at least maintained by Mr Combe.

The decision of several of these points requires the dissection, in the recent subject, of a considerable number of male and female, of young and adult heads; an induction of this kind may consequently require some delay. The consideration of those propositions which require only an examination of a sufficient complement of crania, and which can therefore be at all times rapidly and easily accomplished, the umpires have agreed to postpone. These, however, involve at once the most numerous, and the most important of the facts at issue; and nothing can be easier or more opportune, than for Dr Spurzheim to mani-

fest, if that be possible, the futility of my counter propositions, the confirmation of which would completely eviscerate his system. It fortunately also happens, that no difficulty can occur in determining the crania, on which the experiment should be made. There is extant, in the Royal Museum of Natural History, a series of fifty skulls from the catacombs of Paris, selected in illustration of Phrenology, numbered, the sex discriminated, and the developments noted, by Dr Spurzheim himself. These cannot, therefore, by any, far less by Dr Spurzheim, be regarded as unfairly adduced in opposition to the doctrine in support of which they were procured. On these, though far from exhibiting an average favourable to my positions, I am content to rest the decision of the contested points. By them alone the *second, fourth, fifth, sixth, eleven, twelfth, and thirteenth* propositions can be satisfactorily determined. The *eighth* can be decided by the dissection of any single brain. If that were thought expedient, the *first, ninth, and tenth* might be brought to proof, by examining the crania in the different anatomical collections; and the *fourteenth*, by measuring the heads of any twenty adults, and the heads of the same number of children, in one of the junior classes of a parish-school. I remain, Sir, your most obedient servant,

W. HAMILTON.

16, King Street, 19th January, 1838.

LETTER FROM DR SPURZHEIM.

To the Editor of the Caledonian Mercury.

SIR,—Your paper of Monday last contains a long communication from Sir William Hamilton, in answer to the remarks on his proceedings concerning Phrenology, as published in your paper on a former occasion. I beg that you will oblige me by inserting in your next number, if convenient, the following reply:—

Sir William is mistaken in thinking that I complained of his acting unfairly. He may learn from his friends amongst my numerous auditors, that I never used a single expression offensive to his personal character; that, on the contrary, in my first lecture I gave him credit for his acting openly, and compared his doing so with the concealed conduct of anonymous reviewers. As his motto, *Res non verba quæro*, has been mine long ago, I ask him at once, where in my works he read that, 1st, "The sinus, when present, betrays its existence and extent by an irregular elevation of a peculiar character constituting a bony crest, or ridge, or blister?" (See his Vth Phrenological Proposition.)—2d, "That the opposite sides of the cranium are in general commensurate; and, when not symmetrical, this ir-

“regularity is the effect, and consequently the index of disease in the brain?” (See his VIIth Phrenological Proposition.)—And, 3d, that “The lower region of the brow is found more largely developed in children than the superior parts of the forehead?” (See his XIVth Phrenological Proposition.) I declare these three statements to be inexact, and deny them to be my opinions.

With respect to the greater number of his counter propositions, Sir William refers the public and myself to fifty skulls in the Museum of Natural History at Edinburgh. As he styles Dr Gall and myself theorists, and accuses us as being “the most worthless of observers,” your readers may be glad to become acquainted with Sir William’s accuracy in observing, and his close reasoning in drawing inferences from his observations. He comes forward with fifty skulls of persons of whom he knows neither age nor condition of life, neither character nor talent. These skulls were picked out *by myself* in the catacombs of Paris, among thousands of skulls, on account of their singular shapes, in order to send them to the Phrenologists of Edinburgh, as proofs against the Edinburgh Review, which had affirmed that such different forms of heads as we speak of are not to be found in nature, and never existed. They were forwarded by Mr Royer of the Jardin du Roi of Paris, to this city, with this intention, and are evidently *anomalies*. It is farther known to a certainty, that an immense quantity of bones was carried to the catacombs of Paris from the church-yard *Des Innocens*, when it was changed into a market-place. It is also certain that in the church-yard *Des Innocens*, the very *canaille* of Paris, and the lower classes of the *quartiers de St Denis* and *de St Martin*, were buried. Now, I leave it to the public to decide on the merit of Sir William’s accuracy in observing, and of the fairness of his inferences, when he takes singular, and several of them monstrous configurations, as types of female heads, whilst some of them were perhaps *poissardes*, or even prostitutes. If Sir William has no facility of collecting skulls of boys and girls, men and women, why does he not compare living persons, in order to convince himself, that among the native females in all good families in Edinburgh, there is probably not one single specimen of head similar to those skulls which he holds out as standard forms of females, and on which “he is content to rest the decision of the contested points?” If this be accuracy of observation, I confess it is beyond my power of comprehension.

I also wish to Sir William success in proving to the medical world, that “the cerebellum reaches its full relative proportion to the brain, probably at the age of three years (see “his Xth Counter Proposition); that the cerebellum of women is, on an average, and in proportion to their smaller heads, much larger than the cerebellum of men; and that this ana-

"logy probably holds true throughout nature (his XIth Counter Proposition); that though in a smaller head the cerebellum of women is, on an average, absolutely larger than that of men, and that probably the same is true of other females as compared with other males (his XIIth Counter Proposition); that from the age of seven the cerebral mass gains little or nothing in volume, and that the increase of the head, about the time of puberty and afterwards, is determined by the greater development of the cranial bones, muscles, integuments, and hair (his IXth Counter Proposition); and that in very ordinary cases the sinus covers the greatly larger proportion of the supposed organs, and *frequently* affects more than a third of the thirty-six," (his VIth Counter Proposition.) If Sir William can demonstrate these his assertions, his name will undoubtedly rank very high among those of illustrious anatomists. I assure the learned gentleman, that I am no less anxious than he is to derive my knowledge from nature, and that I shall always be ready to learn from him, when he can show me in nature what I did not know. But, after all, is he not premature in his conclusions, when, by his own showing, the data which he assumes are still unsupported by any existing evidence? Should he not have had his supposed facts established incontrovertibly before he appeared as a champion? Finally, coming to the conclusion, I beg your readers to remark, that the fifty skulls in the Museum of Natural History do not furnish satisfactory proof to determine Sir William's *second, fourth, fifth, sixth, eleventh, twelfth, and thirteenth* Counter Propositions; that his 8th Phrenological Proposition is not to be found in any of my works; that his 9th and 10th Counter Propositions cannot be proved in comparing the different individuals with each other; but that the same individual must be observed at three years, at seven years, and in adult age; and that, as stated above, his 14th Phrenological Proposition is merely assumed.

I heartily invite Sir William Hamilton to attend my lectures and witness my demonstrations, and then he will prosecute the inquiry with more satisfaction to himself, and benefit to Phrenology. Meanwhile, I repeat the offer made in Mr Combe's letter of 22d November, to meet him before as many judges as he chooses to bring forward—to consider all the evidence he may be pleased to adduce in support of his assertions—and to answer his objections. I am, Sir, your very humble servant,

J. SPURZHEIM, M. D.

Edinburgh, 23d January, 1828.

LETTER FROM MR GEORGE COMBE.

To the Editor of the Caledonian Mercury.

SIR,—In your paper of the 21st January, Sir William Hamilton has published a statement regarding the phrenological reference lately entered into between him and me, on which I beg leave to offer a few remarks.

On two several occasions Sir William read essays in opposition to Phrenology before the Royal Society of Edinburgh, in the knowledge that the laws of that Society prohibited not only visitors, but even members, from entering into controversial debate; so that he was in safety to make whatever assertions, and draw whatever inferences, were most agreeable to himself, without fear of contradiction on the part of the Phrenologists. He availed himself of this advantage; and, so far as boldness of assertion and latitude of inference could refute facts, and overcome legitimate reasoning, he appeared to triumph over Phrenology. He was called upon during a period of many months, both by the conductors of the Phrenological Journal and by myself, to publish his Essays, but in vain. In April, 1827, his benevolence, co-operating with his love of truth, prompted him to convert his essays into a popular lecture against Phrenology, which he delivered for the benefit of the distressed operatives, within the College, to a numerous audience of ladies and gentlemen. It again happened that, when I offered to reply to him on the spot, at the termination of his lecture, he discovered that the rules of the University excluded all who were not invested with an academical gown from opening their lips within its walls. I then challenged him to transfer his lecture to the Assembly Rooms; but this also he discovered was not consistent with an academical etiquette. I therefore repeated the call for publication, and in the interim gave a lecture on Phrenology in the Assembly Rooms, in answer to such of his objections as I had been able to comprehend. Previous to this time, Sir William Hamilton had assigned want of leisure as the chief reason for deferring his publication; but, aware of the impression made by the lecture in the Assembly Rooms, which was attended by nearly six hundred individuals, he *thereafter* produced a long series of antiphrenological Propositions, and offered to refer them to umpires. Unwilling to allow any opportunity of meeting him to escape, I acceded to this proposal; but, in a letter addressed to him, dated 9th May, I repeated what had previously been stated, that “there are at least a hundred thousand educated men in Britain, every way qualified to judge of the points in dispute, merely by reading your statements and my answers to them; and with such a body of umpires to appeal to, a public discussion appears greatly

"preferable" to a private reference. He, however, insisted on the private arbitration.

Accordingly, in July, 1827, the umpires met, and after two long discussions about the terms of the propositions and answers* to be submitted to judgment, they proceeded to consideration of the evidence. Sir William Hamilton was the attacking party, and, being called upon for proof of his assertions, produced twelve or thirteen skulls, part of a larger number selected by Dr Spurzheim from the catacombs at Paris, and transmitted to the College Museum of Edinburgh. I stated to the umpires that these skulls had been selected, not as specimens of average human crania, but expressly as instances of extreme development of particular organs, intended for the purpose of showing the wide variety of form in which the human skull existed in nature, the assertions of Drs Gall and Spurzheim on this point having been confidently denied by the Edinburgh Review. Further, I remarked that the age, and, in some instances, the sex of the individuals were doubtful,—and therefore objected to their being received as proper evidence of Sir William Hamilton's propositions. After hearing Sir William at great length on the subject, the umpires unanimously set aside the whole skulls produced by him, as incompetent to support his propositions.

The next meeting of the umpires was held in November last; but Sir William was still unfurnished with any new or better specimens, and in consequence the judges condescended to take upon themselves the duty of doing what he ought to have done before he made a single assertion on the subject, namely, performing a course of dissections, in which the age, sex, and disease of the individuals could be perfectly ascertained. Since this resolution was adopted, they have examined one or two cases, and it may require years before they find a sufficient number to enable them to arrive at any general result. And even after they shall have come to a conclusion, their decision will still be that of only three individuals; and, however distinguished they may be for talents and attainments, the philosophical world will be as little disposed to bow implicitly to their award as to the assertions of Sir William Hamilton himself. With great deference, therefore, the proposal to constitute the medical men of Britain the umpires was rational and philosophical, and ought at once to have been adopted.

In the letter to Dr A. Combe, dated 1st May, 1827, published in the Phrenological Journal, Sir William Hamilton writes thus:

* The answers to Sir William Hamilton's propositions, submitted by me to the umpires, were the same as those stated in Dr Spurzheim's letter to you of this date; and, in particular, I denied that it had been any doctrine of mine that irregularity in the opposite sides of the cranium "is the effect, and consequently the index, of the disease in the brain."

—"I have only to say, that Gall and Spurzheim are the only " authentic representatives of their own doctrine," and that " Gall and Spurzheim are the only authors I propose to refute,"—and he frequently repeated this statement on subsequent occasions. On 22d November, therefore, when I had ascertained that Dr Spurzheim intended to lecture in Edinburgh, I wrote to Sir William, and proposed that he should meet Dr S. on his arrival in January, 1828, and proceed with him to a final termination of the points in dispute; *but Sir William declined this proposal.*

Here I beg leave to observe, 1st, That the very offer by Sir William of a private reference to umpires, in place of a public discussion, indicated a consciousness, on his part, that he was not in possession of evidence sufficient to make good his assertions; 2dly, That the rejection by the umpires of the whole evidence produced by him, as inadequate to support his propositions, positively establishes, that in the Royal Society, and in his popular lecture, he indulged in assertions of which he possessed no legitimate proof; 3dly, That his refusal to meet Dr Spurzheim, and conclude the arbitration with him, betrayed a decided want of confidence in the positions which he had undertaken to defend; and, finally, that if he shall now reject the invitation made to him by Dr Spurzheim to attend his lectures, just about to commence, on the anatomy, physiology, and pathology of the brain, so as to learn what Phrenology really is, of which, up to this hour, he appears to be imperfectly informed; and if he shall fail to accept Dr Spurzheim's challenge to bring forward evidence of his objections during this gentleman's stay in Edinburgh, which will be prolonged for a month, the public will draw their own conclusions regarding the foundation of his opposition, and the reasonableness of his asking the umpires and myself to proceed farther in the reference, at a great sacrifice both of time and labour.

It is amusing, as well as edifying, to compare the promise made by Sir William Hamilton, in his letters of April and May, published in the Phrenological Journal, No 15, with his subsequent achievements. He says, "I bind myself to *PROVE not simply*, that the assertions of Drs Gall and Spurzheim, in regard to the fundamental conditions of their hypotheses, *are false*, but that they are *diametrically opposite to the truth*." "My proof shall rest not only on the concurrent testimony of anatomists, but on the notorious evidence of an extensive induction of crania, previously purged on any general principle you may propose." Again he says, "*I am PREPARED*, admitting even the preliminary possibility of the hypothesis, to demonstrate the falsehood of every integral position it involves, which I have been able to bring to proof;" and farther, "I cannot entertain a doubt, but that the assertions of Gall

" and Spurzheim are, in regard even to the plainest facts of *cranial* anatomy, assuredly the reverse of truth, as is their opinion in *cerebral* anatomy, that the cortical matter precedes and generates the medullary substance. In these circumstances, it is idle to disguise the inevitable alternative; *either* Drs Gall and Spurzheim are the most worthless observers, or my counter statements are a product of the most exquisite delusion that presumption ever engendered upon ignorance." As Sir William has hitherto adduced no proof of his assertions, I leave your readers to decide whether Drs Gall and Spurzheim or he are most in danger of suffering from the application of the foregoing alternatives.—I am, Sir, your very obedient servant,
GEO. COMBE.

25, Northumberland Street, 23d January, 1828.

To the Editor of the Caledonian Mercury.

SIR,—My letter of the 19th has drawn forth replies both from Dr Spurzheim and Mr Combe.

In reference to the first, I am happy to find that the allusions I felt myself compelled to notice are to be attributed not to Dr Spurzheim, but to an erroneous report of his lectures; and whatever I may say of that gentleman's opinions, I hope I shall always be found to speak of himself with perfect courtesy and respect. Dr Spurzheim is not correct when he says that I accuse him and Gall of being "the most worthless of observers."

One proposition (viii.) Dr Spurzheim says is not to be found in his works. Does he mean to hold against Gall, and with all other anatomists, that the convolutions of the opposite hemispheres are not symmetrical? This would be an important admission.

Three phrenological propositions (v. vi. and xiv.) Dr Spurzheim declares to be incorrect in themselves, denies them as his opinions, and asks in what part of *his* works they are contained. To my accuracy it is indifferent whether they be held by Dr Spurzheim, if they be maintained by Dr Gall; but, in point of fact, all three, with the exception of the *seventh*, which I only asserted to be held by Mr Combe, are "virtually, or in terms," maintained by Dr Spurzheim. Even the *seventh* is apparently involved in the *eighth*, as it seems difficult to conceive how the convolutions of the hemispheres of the brain should be symmetrical, and yet the opposite sides of the cranium be unequally developed.

The *fifth* ("that the sinus when present betrays its existence and extent by an irregular elevation of a peculiar character, constituting a bony crest, or ridge, or blister, and is distin-

"guished from the forms under which the phrenological organs are developed ;") this proposition is, in substance, to be found repeatedly in Dr Spurzheim's writings. Speaking of the objection of the frontal sinus as affecting Locality, he says, "the development of this organ and that of the frontal sinuses present quite different forms; the frontal sinuses only form a bony crest, while the isolated protuberance, indicating the particular development of the organ of Space, is round and large."—(*Phys. System*, p. 236.) In his "*Phrenology*," the development of Locality is also, after Gall, said to be situated higher in the forehead (p. 116). In all these places (and in his "*Examination of Objections*," &c. p. 79,) the sinus and the bony crest are used by Dr Spurzheim with Gall as correlative and convertible terms; and the latter explains the formation of the cavity, by saying, that in subjects "not very old" the external plate separates and bulges out, forming two very sensible elevations, which he afterwards describes as *irregular*, in contradistinction to the development of Locality.—(*Physiol. III.* p. 43.) The term "blister" was added to include Mr Combe's description. How the proposition could have been generalized more correctly I am yet to be informed.

In the *fourteenth* proposition, the clause, that "the lower region of the brow is more largely developed in children than the superior part of the forehead," &c. is, *I re-affirm*, virtually or expressly asserted by Dr Spurzheim and all the Phrenologists. "The manifestations of the mental faculties," to use Dr Spurzheim's language, "always follow the growth of the cerebral organs." The "knowing faculties" are, and must be admitted by the Phrenologists to be manifested, in full vigour, long before the "reflective;" consequently the development of the former precedes the development of the latter. "Eventuality" is even stated by Dr Spurzheim himself to be "largely developed in children." That the proposition in question is involved as an elementary fact of Phrenology, is proved, indeed, by all the writings of the school. Hear Dr Combe. "It is an undisputed truth, that the various mental powers of man appear in succession, and, as a general rule, that the reflecting or reasoning faculties are those which arrive latest at perfection. In the child the powers of observing the existence and qualities of external objects arrive much sooner at their maturity than the reasoning faculties. Daily observation shows that the brain undergoes a corresponding change." "*In childhood, the middle and lower part of the forehead generally predominates; in later life the upper and lateral parts become more prominent.*"—(*Phren. Transact.* p. 414.)

It is sufficiently irksome to be compelled to reply to all this.

I now proceed to consider the more curious parts of the Doctor's letter, in which he struggles hard to escape from the suicidal confutation afforded by his own collection of crania. In

this collection the skulls are said to be "singular in their shapes," and to be "evidently anomalies." With the exception of one or two unimportant examples, this I positively deny, and I would willingly refer the point to any anatomist. In the present case, however, that the skulls were chosen to show the development of the different organs in excess and in defect, is of no importance, as the average is sufficiently large, and as the developments counterbalance each other.

Dr Spurzheim argues, that a comparison of the male and female skulls in this collection would not be decisive of the relative size of that viscus in the sexes, because some of the women "were perhaps *poissardes*, or even prostitutes." Now the Doctor has evidently no right to presume of the women what I may not with equal justice do of the men. All general argument on this point, is, however, in this instance fortunately superseded, as the developments, whether of excess or deficiency, have been all carefully marked by Dr Spurzheim himself; so that we are able to determine, on his own authority, what is the preponderance of extraordinary development in either scale. And to put an end to all cavil, as we are generally able at a game of facts with the Phrenologists to make them a present of a few points, and still to win easily at last, *I will allow all the male crania in which their organ No 1 is marked as large to be arrayed against me, and I will further reject all the female skulls in which this organ is similarly noted.* I have, however, no particular attachment to these skulls, and only adduced them as evidently demonstrating the perfect impartiality of my induction. But of this afterwards.

I am amused with the Doctor's offer to try the question of the size of the cerebellum in the sexes by experiment on "*the native females of the good families in Edinburgh.*" I shall certainly have no objection to the proof, if Dr Spurzheim can persuade his female auditors to submit.

But if, under any circumstances, this collection could be held not to afford a fair induction of the phrenological organs, it would be the grossest absurdity to suppose it incompetent to decide the questions in relation to the frontal sinus. This I defy the Phrenologists to find any anatomist to assert. If the series exhibits only two or three crania of old persons—if not a skull is to be found without a sinus—and if the smallest sinuses are discovered in the oldest subjects—it surely subverts the doctrine of Dr Spurzheim, that "*these cavities occur only in old persons, or after chronic insanity,*" to say nothing of the assertion of Gall and others, that they "*are rarely to be found in women.*" If Dr Spurzheim has marked *three only* of these crania as exhibiting the frontal sinuses, in which, however, the internal vacuity holds no relation to the external ridge, the phrenological criterion of their presence is shown to be absurd. And if the sinus is found frequently to affect from *six to sixteen* organs, the

assertion of Phrenologists, that it covers, in ordinary cases, only *two*, is shown to be equally unfounded.

Surely Dr Spurzheim and Mr Combe do not seriously suppose that my induction is limited to these French crania. They form a few only of those I have examined; and I should have equal confidence in my conclusions were they annihilated. I only prize them as a convenient, accessible, and manifestly impartial, evidence in my favour. But all unselected skulls, as all impartial anatomists, are on my side.

I cannot accept Dr Spurzheim's hypothetical felicitations on the novelty of my anatomical discoveries; for, unfortunately for my originality, with the exception of the eleventh and twelfth counter propositions, the facts to which he alludes have been fully established, through a large and most elaborate induction, by the brothers Wenzel. These anatomists, whom the late Dr John Gordon (a truly competent judge) has justly praised in his *System of Anatomy*, as the most original and accurate observers on the brain who have appeared for more than a century, have proved that this viscus attains its full complement about seven years old, and that the relative proportions of the brain and cerebellum are the same from the age of three. The articulate and minute weighings and measurements of those physiologists, confirmed by the independent observations of Soemmering, Ackermann, Rudolphi, &c., (to say nothing of the experience of hatters, adduced by Dr Milligan, which proves that the *head* does not increase in size from seven years old till twelve, at which period it is well known that the skull, cranial integuments, and hair, begin to wax much thicker)—have only been refuted on the part of the Phrenologists by vague and unauthenticated assertion. My own measurements of young crania confirm the statements of the anatomists.

I cannot comprehend how an attendance upon Dr Spurzheim's lectures can have any influence on the present discussion. As a matter of some interest, I meant to have witnessed Dr Spurzheim's dissection of the brain, which I have always heard was performed with the greatest dexterity; and, as that gentleman has politely sent me a ticket, I propose attending these lectures when not otherwise necessarily engaged. But as the only point at issue between us, which can be determined by a limited demonstration, is the symmetry of the opposite convolutions; and as that, however vital a point, is now either given up or not supported by Dr Spurzheim, it cannot be supposed that any admiration I may feel of Dr Spurzheim, in his illustration of matters irrelevant to Phrenology, can have any influence in persuading me of the truth of facts which *I know*, from the most accurate observation, to be false. It is idle also in my opponents to talk of my ignorance of their science, while unable to adduce a single specimen of misrepresentation; and it is still more absurd to recommend me to attend their lectures, "*to learn what*

"*Phrenology really is,*" seeing that on this point the teachers themselves are by the ears. Are not the faithful scandalized to see Dr Gall anathematizing the heretical novelties of Spurzheim, and Dr Spurzheim ridiculing Gall's antiquated attachment to the bumps? Does not Mr Combe acknowledge Dr Spurzheim to be wrong, and Dr Spurzheim combat the theories of Mr Combe? Have the professors also an esoteric doctrine only orally communicated?

I now proceed to Mr Combe. I cannot afford time to refute this gentleman's history of my relations with Phrenology. I can only say I am sorry that any irritation should have so blinded his better judgment, as to stoop to such statements and insinuations as he has ventured to indulge in. The whole scope of this perverse narrative is to impress on the public that I have no confidence in my facts. This attempt is not a little amusing, at the very moment when I am offering to prove the most important positions of Phrenology to be ludicrously false, and when the Phrenologists are writhing to escape from the cruel refutation of their system furnished by their own collections. It is only a short time since I was accused of reckless temerity and overweening confidence by the *Phrenological Journal*; and Mr Combe has always found me any thing but diffident of my induction. He has not stated in his narrative, nay, he has insinuated the contrary, that I promptly acquiesced, though in violation even of academical decorum, in his desire to be permitted to make observations on my argument at the conclusion of my lecture, and that *he himself subsequently contrived to frustrate my intention*. He does not state that every facility was offered him to examine the crania on which I was to found my public demonstration, and that he was pressed and goaded, nay, even taunted into an acceptance of the same specimens for the use of his own lecture in the Assembly Rooms. What in fact had I to fear from an appeal to nature? All anatomical testimony is on my side, and the phrenological propositions are so untenable, that I *defy and challenge* my opponents to produce a single *practical anatomist* who will consent to stake his reputation on their truth. The question is, in fact, already decided with men of science; and even the great world is beginning to suspect the baseless nature of the fabric with which it has been so long amused.

I shall only notice one or two of the principal misrepresentations.

Some time ago, Mr Combe proposed to me to *devolve the part of defender in the arbitration* on Dr Spurzheim. This I declined, because the end of the reference was not likely to be accomplished if I lost Mr Combe as an opponent, since the facts could not all be decided during the temporary residence of Dr Spurzheim in this city. I felt also, I acknowledge, some dislike at being placed in such strong and permanent collision with a man

so completely identified with the system I opposed; I never, however, as Mr Combe ventures to state, refused to meet Dr Spurzheim, or even dreamt that he might not attend the meetings of the umpires, at one of which he was actually present.

In regard to Mr Combe's most erroneous assertion, that the arbiters decided against the general competency of Dr Spurzheim's crania, I state the following facts:—At the second meeting of the umpires, after a tedious preliminary discussion on the adjustment of the issues, it was proposed, before separating, to proceed to the consideration of one of the propositions; and the fourth was chosen in regard to their rare occurrence in the female cranium. I produced the skulls marked as women in Dr Spurzheim's collection. Mr Combe made no previous objection to this production; and he could not have learnt any thing of their nature from Dr Spurzheim; for he stated, that he did not know on any better authority than in my report, that they were marked by that gentleman. He agreed to ascertain the fact from the doctor himself. When produced, Mr Combe made sundry objections, that the age could not certainly be known; and even professed to doubt the accuracy of the sexual discrimination. Some loose conversation passed; and it was agreed by all, that the *umpires* should endeavour to procure crania of whose age and sex no doubt could be entertained. The arbiters came to no general decision in regard either to the thirteen skulls before them, or to the others which they never saw. I am certain that no minute of any decision took place; and there was only an agreement that, on the special point under consideration, it was better, in the first place, to procure the evidence most satisfactory to all. I was perfectly contented with this. From an induction of several hundred crania, I did not believe that there would be found in Edinburgh a single example of a European female skull without the sinus; and I was far better pleased to have Dr Spurzheim's competency as a craniological discriminator redargued by his own disciple, than the unimportant evidence of these crania, on this point, unconditionally accepted.

Mr Combe's extraordinary statement, that at the last meeting of the umpires in November (called by himself in the Phrenological Hall), I was still unfurnished with skulls, is totally without foundation, as is his insinuation, that the protraction of the arbitration was occasioned by any delay on my part in producing evidence to the umpires.

In a few days, though I have no hopes of ever satisfying the Phrenologists, I am confident of being able to bring the truth of their doctrine to a decision that will satisfy all impartial judges.—I remain, Sir, your most obedient servant,

W. HAMILTON.

LETTER FROM DR SPURZHEIM.

To the Editor of the Caledonian Mercury.

SIR,—Be pleased to communicate to your readers my final answer to Sir William Hamilton. I am confident that a newspaper correspondence will not decide about the truth or falsehood of Phrenology. Further, *Res non verba quæso*. What is, is; and it is as it is, whatever Dr Gall, myself, Mr Combe, Sir William Hamilton, or any other friend or enemy of Phrenology, may affirm or deny. I declared three of Sir William Hamilton's propositions to be inexact, and asked him where in my works he had read them? Why, *instead of simply copying the passages*, does he confine himself to informing your readers that my assertions "are in substance" what he assumes them to be? Let us abandon all inferential phraseology, and stick to reality; I shall be judged by the public. As, however, Sir William relies on the late Dr John Gordon, whom he calls "*a truly competent judge*," he does not stand in need of attending my evening course on the anatomy, physiology, and pathology of the brain. The same Dr Gordon, supported by the Edinburgh Review, declared our anatomical and physiological views of the brain to be "*sheer nonsense and direct imposture*," and it was therefore unnecessary for Sir William to mention to the public, that, being invited, he proposes "*attending my lectures in the evening when not otherwise necessarily engaged*." Besides, who does not feel, that, in this season, evening engagements are of much greater importance than witnessing the dissection of the brain and examining physiological facts, more especially when these are shown by a person whom Dr Gordon, the oracle of Sir William, and, in addition, the Edinburgh literary gospel, have presented to their readers as a quack and a mountebank! Notwithstanding all this, I shall thankfully witness the proofs to which Sir William alludes, at the end of his last letter in your paper, and he may be assured that no engagement, neither in the day nor in the evening, will prevent me from examining the facts which he promises to show. His merit will be undoubtedly very great, if he be able to bring the truth of Phrenology "*to a decision that will satisfy all impartial judges*."—I remain, Sir, your most obedient servant,

G. SPURZHEIM.

LETTER FROM MR G. COMBE.

To the Editor of the Caledonian Mercury.

SIR,—I beg leave to make a few observations in answer to Sir William Hamilton's letter to you, dated 26th January.

I have written a letter to the umpires, requesting them to favour me with a statement of the proceedings in the reference for publication; but the severe indisposition of Dr Christison prevents them from returning an answer for some days. In the mean time, I positively affirm, that my former assertion, that hitherto Sir William has proved nothing, and that all the evidence yet adduced by him has been rejected, was perfectly correct.

Sir William says that he promptly acquiesced in my desire to be permitted to make observations on his argument at the conclusion of his lectures; but that I "*subsequently contrived to frustrate his intention.*" This is a most incorrect statement. On the 14th April, 1827, after obtaining Sir William's acquiescence, I wrote to Principal Baird as follows:—"My dear Sir,—I use the freedom to annex a copy of a correspondence betwixt Sir William Hamilton and me, on the subject of my delivering a lecture for the benefit of the distressed operatives, in answer to his objections against Phrenology, and most respectfully solicit the permission of the Senatus Academicus to give a reply at the conclusion of the demonstration." The answer returned was as follows:—"Extract from the Minutes of a Meeting of the Senatus Academicus of the University of Edinburgh, held 16th April, 1827.

"It was resolved that the request of Mr Combe (he not being a member of the Senatus) could not be granted.

"ANDREW DUNCAN, jun., Sec."

This is what Sir William calls my "*contriving to frustrate his intention.*"

As Sir William Hamilton is pleased to controvert the statements in my letter to you of the 23d January, about his declining to meet Dr Spurzheim, and proceed to the termination of the reference with him, I solicit the favour of your attention to the following circumstances:—

Sir William is pleased to quote a passage from Dr A. Combe's answer to the late Dr Barclay, as embodying what he holds to be a phrenological proposition. Had not Sir William himself positively precluded Dr Combe, it would have been easy for him to show that Sir William has altogether misapprehended his meaning, and that his words and Sir William's statement are by no means equivalent. In his answer to Dr C.'s letter of 30th April last, in which Dr C. had used the pronoun *we*, as including himself among the Phrenologists whose principles he was stating, Sir William reiterates the assurance *no less than four times in a single printed page*, that the works of the founders afford the *only* genuine exposition of their opinions. He begins, for example, by assuring Dr C. "that Gall and Spurzheim are the *ONLY* authentic representatives of their own doctrines," and immediately adds, "Gall and Spurzheim are the *ONLY* authors I proposed to refute;" and again, "I stated them," (his

first and third propositions), "because I wished to demonstrate the true value of the authority of Gall and Spurzheim;" and, as if all this had not been enough to satisfy Dr C., he repeats once more, "I only observe, that wishing, as I said, *ONLY to refute the assertions of the two founders.*"—(*Vide Phrenological Journal*, vol. iv. p. 394.)—Keeping these assurances in view, I would ask what Sir William really means? Does he still hold the writings of Drs Gall and Spurzheim as the only authentic record of phrenological doctrine, to the exclusion of all other phrenological authors, or does he not? If he does, why, after his own explicit remonstrances, does he pronounce to be phrenological, a proposition which is not to be found in the works of its founders? If he does not, then why did he interdict Dr Combe from adducing the statements of other Phrenologists as expressive of phrenological doctrines? And how can he expect Dr C. to defend his opinions in the face of his, Sir William's, own prohibition and denial of their authenticity? And why, while they are still under his ban as unauthentic, does he now resort to them as if they *did* represent the true doctrine?

Keeping this statement in view, I beg leave to present you with copies of my letter to Sir W. H., and of his answer about admitting Dr Spurzheim as a party to the arbitration.

"LETTER—GEORGE COMBE TO SIR WILLIAM HAMILTON, BART.

"Edinburgh, Nov. 22, 1827.

"MY DEAR SIR,—Our arbitration-question has been long postponed, owing to the absence from town of the parties, the illness of Dr Scott, the marriage of Dr Christison, &c.; but now the umpires are ready to resume, and so am I. I beg leave to mention, however, that Dr Spurzheim has written to me that he will positively lecture in Edinburgh in January next; and, as you stated at the first meeting of the umpires, that you did not attack Phrenology, nor my exposition of it, but solely the statements of Drs Gall and Spurzheim, it has occurred to me that the most proper course of proceeding is to delay farther discussion till Dr Spurzheim's arrival, and then that you and he should proceed to a final determination of the points in dispute. The declaration, that you controverted only the statements of Drs Gall and Spurzheim, placed me, from the first, in an improper position; for I did not represent them, and had no authority to refer any views or opinions of theirs to arbitration. In fact, I could proceed only in so far as my own views were the same as theirs; which certainly, with very few exceptions, they were; but still these founders of Phrenology might well object to their writings being condemned by arbitrators before whom they had not been heard. Dr Spurzheim's presence in Edinburgh

"will remove this objection. If, however, you decline this proposal, I am ready to proceed. Mean time, remain, &c.
(Signed) "GEO. COMBE."

"LETTER—SIR WILLIAM HAMILTON TO GEORGE COMBE, ESQ.

"MY DEAR SIR,—I have to apologise for allowing your note of 22d November to lie so long unanswered. I wished, previously to writing you, to see Dr Christison, and to ascertain whether he was prepared to proceed with the arbitration, which he is. I am also quite ready to meet you and the umpires whenever it suits their convenience and yours.

"Your proposal of surrendering the defence of the arbitration to Dr Spurzheim, I must beg leave to decline, for various reasons which it is here needless to enumerate. I certainly never said '*that I did not attack Phrenology, but solely the statements of Drs Gall and Spurzheim*;' for I know not where Phrenology is to be found except in the statements of its authors; nor can I imagine any other expositor entitled to represent their doctrine with an authority equal to that of its founders. It is, however, only in so far as you coincide with Drs Gall and Spurzheim in regard to the most fundamental positions and the plainest facts that we have any controversy; and you agreed to enter into the arbitration because you were willing to peril their credibility, and the possibility of the system, on the truth of the assertions which I offered to disprove. Hoping that we may soon bring the points at issue to proof, I remain, &c.

(Signed) "W. HAMILTON."

The meeting of the umpires suggested in my letter of the 22d November did not take place till 22d December. It was then held in the Clyde Street Hall; but I positively affirm that Sir William Hamilton only referred again to the crania that had been previously rejected, and did not produce one jot of additional evidence to substantiate any of his propositions.

Sir William says, that Dr Spurzheim was actually present "at one of the meetings of the umpires." This is correct: but he forbears to state what occurred. Owing to a previous engagement, it was impossible for me to be present; but Dr A. Combe, accompanied by Dr Spurzheim, attended, not as parties, but as spectators. These gentlemen waited with much patience to hear and see Sir William's evidence; but they assure me, that, though personally present, he neither said any thing, nor did any thing, in furtherance of the objects of the reference.

Sir William proceeds—"Mr Combe does not state that every facility was offered him to examine the crania on which I was to found my public demonstration, and that he was pressed and goaded, and even taunted into an acceptance of the same specimens for the use of his own lecture in the Assembly Rooms."

This matter is very easily set at rest. On 25th April, 1897, I wrote to Sir William as follows:—"I beg to mention, that, at the request of the committee for the relief of the distressed operatives, I shall deliver a lecture on the evidence of Phrenology, in the Assembly Rooms, at one o'clock on Friday, and will be happy to exhibit as many skulls of the collection used by you as will be allowed to be cut open. Farther, if you will honour me with your attendance at the Clyde Street Hall, on Friday morning at ten, I shall saw open as many skulls as you may select, carry them to the Assembly Rooms, and abide by the evidence they afford, both as to parallelism and the frontal sinus."

Sir William wrote in answer, that he was allowed to offer me "the whole 50 skulls sent by M. Royer to the Museum;" but that as Professor Jameson was averse from disfiguring the heads, all that he could obtain was permission for me "to open, before the audience, one of the two cavities (the frontal sinuses) in any three crania that may be selected." Farther, he declined my offer of opening as many skulls as he might select belonging to the Phrenological collection. On 27th April I wrote him, "Unless I am permitted to saw open at least a dozen of them (the skulls,) not selected on account of evident peculiarities, but taken at random, so as to afford a fair average, I shall be obliged to decline admitting them as evidence."

My reason for rejecting the skulls which I was not allowed to saw open was, that, without being opened, the audience in the Assembly Rooms could not see the sinuses, and, in that case, had I not reason to apprehend that the whole would have terminated in a controversy about facts which the auditory had no sufficient means of verifying? My wish was, that the question should rest, not on assertions on the part of Sir William Hamilton, and contradictions on mine, but on the evidence of the senses of those present.

In conclusion, Sir William says, "*I am confident of being able to bring the truth of the doctrine to a decision that will satisfy all impartial judges.*" Sir William has all along been confident of doing so much, while hitherto he has accomplished so little, that I am not very sanguine in expectation from this announcement; but it would afford me the greatest pleasure if he shall keep his word. I have spent much time and taken much trouble with Sir William Hamilton; but although from other opponents I have learned something in the way either of correction or elucidation, from him I have derived not one iota of knowledge. Words, and words alone, have been poured out upon me, and the stream has been so copious, that sense and fact have seemed to me to be too often swept away in the flood. I am, Sir, your very obedient servant,

GEO. COMBE.

Edinburgh, 30th Jan. 1898.

LETTER FROM SIR WILLIAM HAMILTON.

*To the Editor of the Caledonian Mercury.**

SIR,—Might I request you to allow the insertion of the following observations, in supplement of the letter which appeared in your last paper.

I there forgot to notice Mr Combe's denial, "*that it had been any doctrine of his that irregularity in the opposite sides of the 'cranium' is the effect, and consequently the index of disease in 'the brain.'*" I beg to ask that gentleman, whether I am wrong in supposing a philosopher to hold a doctrine which he not only merely asserts, but even applies in parrying an objection to his system; and whether he himself did not, on *this ground*, endeavour to extenuate the ludicrous illustration of phrenological truth which the cranium of the atrocious robber-murderer of Bali afforded? Among other similar contradictions, I had shown by phrenological measurement, that the skull of this monster greatly surpassed that of George Buchanan, in *all* the intellectual and moral organs, and was equally deficient to it in *all* the brute propensities, and in particular in that of murder or Destructiveness. Mr Combe, in his lecture in the Assembly Rooms, finding that the two sides of this cranium were not perfectly correspondent, (not a skull in a hundred, as observed by anatomists, is found symmetrical, and the want of symmetry in this specimen did not certainly exceed the average,) boldly asserted, that because thus, what he called "twisted," it was a diseased, and consequently an incompetent, subject of comparison. Will he likewise deny, that he attempted to show of the same skull, that there was a deficiency in the organ of Conscientiousness, by holding up in contrast with it, a thing he called the cast of a head, and which exhibited the superior and lateral parts towering into two mountains divided by an interjacent valley? On this anomaly, which he then took for his *mean standard of proportion*, there could not probably be found, on phrenological principles, an honest individual in Europe; but had it been convenient to have proved the owner of this skull a virtuous character, it would not probably have been difficult to discover on the nonce, among the phrenological apparatus, a counter monstrosity, exhibiting the sides of the cranium sloping from the vertex like a penthouse. Such is the opinion that arrogates to itself the name of science! Mr Combe, it ought to be added, was on this occasion enthusiastically applauded,—by the believers for his triumphant vindication of their faith, by the scoffers for his unconscious exposition of its absurdity.

In my first letter I also neglected to append a note to the

* This letter appeared in the same paper with the two preceding letters of Dr Spurzheim and Mr Combe.

passage where the name of Hufeland is introduced. Among other controverters of Phrenology, that author had been alluded to by me in my correspondence with Mr Combe, printed in the *Phrenological Journal*; and the editor, in a note, says, that he "had seen an extract from a late publication, stating that Hufeland, on more careful and extensive observation, had confessed himself obliged to renounce his opposition, and to adopt the very doctrine to which he had formerly objected." He then refers to an article in the same number, on the progress of Phrenology in Germany. On turning to this article, which purports to be from a foreign correspondent, it no doubt appeared, from a translation out of what was said to be a "*recent*" work of Hufeland's, that he had ended in becoming a decided convert to Phrenology. It was not, however, long before I perceived that the whole was a mere mystification. For, in the *first* place, the "*recent* tribute" paid to the science is extracted from a work of which the *second* edition, now before me, is printed twenty-three years ago: in the *second* place, this "*tribute*" is paid in the introduction of the very work in which he treats Phrenology to its refutation: in the *third* place, the translation, in essential points, is little better than a fabrication. I am far indeed from supposing that the editor of the *Journal*, whoever he be, was a party to the deceit; but the reference to *Bischoff's Darstellung* should have pointed out the hoax, had he not been ignorant of the history of his own opinion. It is, however, evident from the example, that scepticism is not amiss in regard even to phrenological quotations; and in regard to facts, I have never yet met with a statement of any consequence to the system, which, in its accuracy or its application, could bear a critical examination.—I remain, Sir, your most obedient servant,

W. HAMILTON.

16, King Street, 29th January, 1828.

P. S.—I observe an erratum in the third paragraph of my last letter, which reverses the meaning:—for "*are symmetrical*," read "*are not symmetrical*."

LETTER FROM MR GEORGE COMBE.

To the Editor of the Caledonian Mercury.

SIR,—In consequence of the assertions contained in Sir William Hamilton's letter to you, published in the *Mercury* of 31st January, it becomes necessary for me again to trouble you with a reply.

Your readers will have discovered long before this time, that philosophy or facts in nature attract, in a very subordinate degree, the notice of Sir William Hamilton. He has commenced

the present controversy by giving forth several absurd propositions, which he gratuitously ascribes to the Phrenologists, but which the latter at once denied to be either taught or believed by them. Any reasonable disputant would have perceived that here the discussion as to them ought to have terminated; because, both parties being agreed that the propositions have no foundation in nature, farther argument could serve no legitimate end. Sir William Hamilton, however, views matters differently. He gravely states, that his object is to destroy the credibility of Drs Gall and Spurzheim. His own words in his letter of 3d May, 1827, are, "If all their assertions within our observation be false, *all beyond it are entitled to no credit*;" and how does he proceed to show that all their assertions within our observation are false? He does this by thrusting certain disavowed absurdities on these authors, and he hopes, by proving what nobody denies, that *these* are sheer nonsense, to arrive, by "a very simple inference of analogy," at the conclusion, that *real* assertions, founded in nature, and consistent with sense, are not to be believed! The folly of this proceeding is very apparent. *First*, The credibility of Drs Gall and Spurzheim constitutes *no* element in the evidence of Phrenological science. These gentlemen and the other authors on phrenology have all along explicitly stated, that they require no person to believe *any thing on their testimony*, but solely on the evidence addressed to their own senses and intellects. Dr Spurzheim repeated this most particularly at the commencement of his present course of lectures, and I have uniformly been equally explicit. *Secondly*, It is intrinsically absurd to enter into a grave discussion about the credibility of a person who rests his assertions upon facts in nature which may easily be verified. No man of common sense inquires whether a chemist or natural philosopher is credible in relating his experiments; he repeats the experiments himself, and believes or disbelieves according to the result. *Thirdly*, Even were it philosophical gravely to discuss the credibility of phrenological authors, ought not their own statements in their avowed works to be assumed as the authentic record of their opinions? Nevertheless, Sir William Hamilton, when called on by Dr Spurzheim to point out where in his works three of the propositions ascribed to him were to be found, could not do so; but alleged that they were "in substance" what he assumed them to be. This is trifling with the public. Again, after repeating four times in one page, and in the most positive terms, that "*Gall and Spurzheim are the ONLY authentic representatives of their own doctrines*," and that he wished "*ONLY to refute the assertions of the two founders*," he attributes an absurd proposition to *Phrenologists in general*, and adduces an alleged statement of *mine* as the authority on which he rests. Not only this; but he assumes his own recollection of an oral discourse, delivered by me nine months ago, as a sufficient ground for im-

puting to me a statement which I disavow, and which a printed record of my words, published in the Scotsman newspaper at the time, proves that I did not utter. This can easily be established.

1st, As to Dr Gall's doctrine regarding the symmetry of the two sides of the cranium, that author says, "We must not forget, that often the healthiest heads, I mean those in which the form has not been influenced by disease, have two sides unequal."

2dly, As to my statement—On 31st January last, I wrote Sir William Hamilton as follows:—"Will you oblige me by pointing out the authority for which you ascribe to me the doctrine, 'That irregularity in the opposite sides of the cranium is the effect, and consequently the index of disease in the brain?'" The answer is in these terms:—"31st January, 1828.—The authority on which I ascribe to you the opinion in question, is *your lecture in the Assembly Rooms*. My memory is very distinct on the subject. You argued, that as the skull of the Bali murderer was twisted, the brain had probably been diseased. I was the more particularly struck with the argument, because I had happened to have recently read in Dr Monro's Anatomy, that not one skull in a hundred was to be found symmetrical, and to have examined an instrument invented by him for measuring this inequality." The following is an extract from a report of my lecture in the Assembly Rooms, published in the Scotsman of 2d May, 1827, prepared not by me, but with the assistance of the notes from which I spoke:—

"The supposed skull of George Buchanan had been produced as an objection; but, in the *first* place, Buchanan died at the age of 78, which was at least 30 years beyond the period of middle life, to which Phrenologists confine their demonstrative observations, and no one could tell how much the brain and skull had diminished in the course of the ordinary decay of nature. In the *second* place, the evidence of the skull having belonged to Buchanan was found by the Phrenologists to be so defective, that they had, for this very reason, avoided publishing any account of it. In the *third* place, even granting it to be the skull of Buchanan, no attempt had been made to show that its development was inconsistent with the manifestations.—It had, indeed, been contrasted, and held to be equally good, with the skull of a Bali murderer, which Mr Combe now saw for the first time, and which had been sent in by Sir William Hamilton after the lecture had begun. A friend sitting behind him (Mr C.) had looked at it since it was handed in, and written the comments, which he would now read:—'The Bali murderer is old, as is seen by the absence of the teeth, and alveolar processes. It is therefore not within the conditions required by Phrenology. The skull is un-

“ equal and twisted. The propensities, generally, are very
 “ large.—Combativeness, Secretiveness, Self-esteem, Cautious-
 “ ness, are all very large, and Destructiveness and Firmness
 “ are large. Conscientiousness is moderate, as it rises little
 “ above the level of Cautiousness. Benevolence and intellect
 “ are large. Here, then, cunning, passion, suspicion, and jea-
 “ lousy, are the strongest among the propensities; and with
 “ such a combination, in a savage nation, murder from age or
 “ from suspicion is quite probable. To prove this skull to be
 “ subversive of Phrenology, Sir William Hamilton must first
 “ prove that it is *not* above middle life, and *not* diseased (which,
 “ *from its appearance, and from the murder apparently not being*
 “ *committed till old age, is at least doubtful*). He must produce
 “ evidence that the manifestations in mature age were *at vari-*
 “ *ance* with even his *present* development; that he was *not*
 “ violent in his rage, *not* crafty, and *not* suspicious; and that he
 “ was *not* deep and calculating in his schemes against others;
 “ that he was *not* kind and firm to his friends; and that he
 “ was *not* a man whose *mental energy* made him feared. Hav-
 “ ing established these points, Sir William may then, but not
 “ till then, produce it as evidence against Phrenology. We
 “ do not receive it as evidence, because we *expressly* specify
 “ middle life as the period for evidence in *demonstration*, and
 “ we *expressly* require health as a condition.”

By the words, “to appearance,” the whole indications of the skull are obviously meant, its density as well as its twist.

Nothing can savour more of the spirit of perverse wrangling than to found on this statement in the lecture the assertion, that I maintain it as a *general* phrenological proposition, that “irregularity in the cranium is the effect, and consequently the index of disease in the brain.”

Up to the present hour, Sir William Hamilton has not produced a shadow of evidence, that the skull which he calls that of George Buchanan really belonged to that individual, or that he did not die at the age of 78, which is beyond the period of phrenological observation. Farther, in a letter, dated 27th April, 1827, I begged of him to send me the letter of Mr Crawford, in which the history of the Bali robber is alleged by him to be detailed, *but he has never done so*; nor has he proved any of the foregoing points, which he was called on to substantiate before being entitled to assert, that this skull afforded evidence against Phrenology.

Sir William says, that I held up in the Assembly Rooms, “in contrast with it, a thing called the cast of a head.” Sir William never before questioned that it was a cast of an actual head; but as he now does so, I am ready, whenever he pleases, to refer him to one of the oldest and most esteemed surgeons in Edinburgh, as the authority on which the authenticity of that cast rests.

Sir William next refers to an article in the Phrenological

Journal about Hufeland's opinions in regard to Phrenology ; but he conceals the fact, that I told him more than a month ago, when he mentioned the error, that I had written to the author of that article, who resides on the continent, and who had translated Hufeland's expressions into indifferent English, for a more explicit statement ; that an answer had then been received, from which it appeared that the original report was not accurate as to its date ; and that this mistake would be corrected in the next number of the Journal.

Sir William denies that he called Dr Spurzheim " the most worthless of observers." His own words are, EITHER Drs " Gall and Spurzheim are the most worthless of observers, OR " my counter-statements are a product of the most exquisite " delusion that presumption ever engendered upon ignorance." I am, Sir, your very obedient servant, GEO. COMBE.

Edinburgh, Feb. 1, 1838.

LETTER FROM SIR WILLIAM HAMILTON.

*To the Editor of the Caledonian Mercury.**

SIR,—I am disappointed to find that, in what Dr Spurzheim is pleased to call " an answer " to my letter, *every point* at issue is either passed over altogether, or studiously evaded. Quoting the *Res non verba quæso*, the Doctor himself treats us to *nothing but words*. After an oracular enunciation of the recondite truth, "*what is is, and it is as it is,*" he starts off in a tirade about evening parties and evening lectures, the Edinburgh Review, and vituperations which that " literary gospel " had vented upon himself and Gall. The occasion of this effusion is the luckless employment I had made of the authority of Dr John Gordon, to prove the high reputation of the Wenzels to the public, who, as unlearned on the subject, were consequently ignorant of the European celebrity of these accurate observers. The Wenzels are not praised by Dr Gordon in disparagement of Spurzheim and Gall, and his testimony is even contained in a systematic work, written, I believe, before its author was acquainted with the works of my opponents. Dr Spurzheim must not, however, be allowed to escape conviction because he refuses to plead.

The Doctor does not answer my pointed interrogatory, whether he now at length admits against Gall, *that the cerebral convolutions are not symmetrical* ? I am willing, however, to accept silence for a confession ; and am not less rejoiced to see Dr Spurzheim thus compelled to evacuate the strongholds of the system, and the surest positions of Gall in relation to the brain, as I was to behold Mr Combe back out of the most important

* This letter appeared in the same paper with the preceding letter of Mr Combe, and has therefore no reference to it.

and confident assertions of Dr Spurzheim touching the cranium and the frontal sinus. So far so good.

In my last letter I proved to demonstration, that the two Phrenological Propositions which Dr Spurzheim denied to be held by him (fifth and fourteenth) were, however, actually his. In his present letter he still affirms that they are "inexact;" but he cautiously abstains from attempting any proof of my inaccuracy. "*The better part of valour is discretion.*" As yet I stand unconvicted of a single misrepresentation of my opponents, while they are seen endeavouring to avoid inevitable refutation, by sneaking out of their opinions,—denying of their language its unambiguous meaning, of their doctrine its most immediate corollaries.

Touching the *fifth* Phrenological Proposition. If Dr Spurzheim can adduce a *single* passage from his own works or those of Gall, where (in opposition to all those I have quoted, proving that the sinus and the bony crest are uniformly maintained by them severally to suppose each other) it is stated, that the internal vacuity, except in cases of old age and disease, is ever found without its external index of the ridge;—in that event, I shall at once abandon this proposition; but, if he cannot do this, he necessarily stands convicted of the grossest quibbling.

In reference to the *fourteenth* Phrenological Proposition, affirming the greater development in children of the inferior parts of the forehead, &c., Dr Spurzheim must either deny, 1. That the knowing *organs* are not situated in the lower region of the brow, and the reflective in the superior; or, 2. That the knowing *faculties* are not manifested before the reflective; or, 3. That the development of the several organs is not correspondent with the manifestation of their respective faculties. Unless he maintains one or other of these alternatives, he cannot impugn the accuracy of my proposition; and, if he does, he virtually denies the truth of Phrenology. He can only escape execution by suicide. Be it observed, that I only quoted Dr Combe in *illustration* of Dr Spurzheim, not as an authority representing the opinion. This, however, it is chosen to misrepresent.

Dr Spurzheim also maintains silence on my challenge to try the question of the relative size of the cerebellum in the sexes, on his own skulls, allowing him to retain *all the male crania marked by himself as large in that organ, and to throw out all the female skulls in which it is similarly distinguished*. I ought to have added, that I would also permit him to reject *all the male crania in which No 1 may be marked as small*, retaining those female crania in which it may be similarly noted. The collection shall also be purged, by any teacher of anatomy, of all skulls which may be "monstrous," "singular," or "anomalous."

If Dr Spurzheim, therefore, is not anxious to evade the appeal

to facts, and would not be reproached with having accused his opponent of misrepresentation, without the shadow of a reason, he will favour me with an answer to the four following questions :—

1. Does he not abandon Gall's assertion in regard to the symmetry of the convolutions of the opposite lobes of the brain ?

2. In what respect have I mis-stated his and Gall's opinion, as published in their works, in regard to the co-relation of the frontal sinus and the superciliary crest ?

3. In what respect have I misrepresented them in regard to their doctrine of the greater development in children of the lower region of the brow ?

4. Does he accept my challenge to try the truth of Phrenology on his own series of skulls, and conceding to him every possible advantage ?

I again defy the Phrenologists to produce a single practical anatomist who will declare that the phrenological propositions are not ludicrously false.

I say nothing in reply to Mr Combe, as I beg leave to decline his interference in the present controversy between Dr Spurzheim and me. I should be sorry, especially at the present busy juncture, to occupy your columns with any answer to his long-winded statements, however easily refuted ; and am unwilling to co-operate in distracting attention from facts of some importance to personalities of none. This also I wish to be my last letter on the present subject.

I remain, Sir,

Your most obedient servant,

W. HAMILTON.

King Street, 31st January, 1828.

Postscript.—As my letter has not been published to-day, I hope I may be permitted to add a few observations, suggested by reading the report of Dr Spurzheim's lecture on the frontal sinus, which appeared in the Scotsman of this morning.

Mr Combe asserts, that he has never learnt any thing from me. This cannot be maintained of Dr Spurzheim. I am rejoiced to find, from this report, that the Doctor *abandons his old opinions, and now actually inculcates the very doctrines which I have offered to prove, and which are diametrically opposed to those hitherto maintained by the Phrenologists.*

In the *first place*, instead of holding that the sinus exists *ONLY in old age, and as the effect of chronic insanity*, by only supporting the feeble negative that they are not found "in every instance," he *now* evidently acknowledges that they are *generally* present. So far, therefore, he admits my second counter-proposition.

In the *second place*, instead of maintaining that the presence

of the sinus is always indicated by a bony crest, he *now* admits that the crest "sometimes accompanies a sinus, and sometimes not." He thus adopts my *fifth* counter-proposition.*

In the *third* place, Dr Spurzheim seems to admit that the sinus exists in children *after seven years old*; and so far, therefore, acquiesces in my *third* counter-proposition. In denying the existence of the sinus before the age of seven, he is, however, opposed to all the most illustrious anatomists, (Morgagni, Albinus, Bichat, Scarpa, &c. &c.,) who trace the sinus back even to the *fœtus*.

But though Dr Spurzheim, less indocile than Mr Combe, conceives it *fas ab hoste doceri*, he does not, however, appear more inclined to acknowledge the tuition. He quietly advances the new opinions, as if these were his spontaneous statements, and not involuntary concessions, extorted from him in the teeth of all that he had ever previously taught. Of this, however, I do not complain; and am better pleased to be saved, by these admissions, (which I shall hold good, if not denied by Dr Spurzheim,) the trouble of bringing my *second*, *third*, and *fifth* counter-propositions to a proof. With the suicidal effects of these admissions to Phrenology, I have at present nothing to do; nor do I advert to the other statements of Dr Spurzheim concerning the sinus, which I know to be not less untrue than the more notorious absurdities, from which he would now fain be allowed quietly to back out. Of the *five* phrenological propositions, on the truth of which Mr Combe originally agreed to peril the truth of Phrenology, and the credit due to its founders, *three* are now given up by Dr Spurzheim himself; and the *two* not yet surrendered are even more untenable than the others. (See *Phrenological Journal*, No XV. p. 390.) I suspect the Phrenologists now begin to nauseate *facts*, even more than they formerly abominated *reasonings*.

Notwithstanding your notice, I trust that Dr Spurzheim may be allowed to insert an answer in your journal to this communication.

2d February, 1828.

* * While we readily accede to the proposal which Sir William Hamilton so very handsomely makes in favour of his opponent, we must still repeat, that, in doing so, we do not hold ourselves as departing from the resolution expressed in our last.

LETTER FROM MR GEORGE COMBE.
To the Editor of the Caledonian Mercury.

SIR,—Acquiescing, as I fully do, in the propriety of terminat-

* The report of Dr Spurzheim's lecture on the frontal sinus, referred to by Sir W. Hamilton, will be found in section IV. of this article.

ing the controversy, in your columns, on the subject of Phrenology, between Sir William Hamilton and me, I solicit the favour of your inserting the Report of the Umpires, which I have only this day received ; and also an Extract from the Phrenological Journal, No I., published in October, 1823, relative to the fifty skulls, which establishes that the Phrenologists have never varied in their account of the purposes for which they were selected and sent to Edinburgh ; and remain, Sir,

Your very obedient servant,

GEORGE COMBE.

Edinburgh, 8th February.

" Proceedings of the Arbiters in the Reference by Sir William Hamilton and Mr Combe, on the Anatomical Facts of Phrenology.

" The first meeting was spent in arranging the Issues to be tried regarding the frontal sinuses.

" At the second meeting the Issues were farther arranged, and Sir William Hamilton proceeded to prove his statements by examining a set of skulls in the University Natural History Museum, said to have been sent from Paris by Dr Spurzheim. Mr Combe stated various objections to these skulls being referred to ; and the arbiters agreed that satisfactory facts could not be deduced from them,—in the first place, Because the age and sex could be determined only presumptively, and even that but in a few ; and, secondly, Because liberty could not be obtained to lay the sinuses open to such an extent as appeared necessary for an accurate examination.

" At the third meeting, after a desultory conversation on the best method of procuring accurate facts for deciding the points at issue between Sir William Hamilton and Mr Combe, the arbiters proposed, that, instead of examining skulls whose history was unknown, and which could not always be cut open to the requisite extent, the parties and umpires should attend the pathological dissections at the Infirmary and Fever Hospital ; by which means they hoped, that, in the course of a few months, a sufficient set of correct observations might be procured, with all the necessary collateral circumstances.—This proposition was agreed to ; and, a few days afterwards the first examination was made in presence of all the arbiters at the Fever Hospital.

" (Signed)—JOHN SCOTT, M.D.—JAMES SYME.—R. CHRISTON.

" Edinburgh, February 8, 1828."

Extract from Phrenological Journal, No I. p. 57.

" We are able to state farther, that the skulls are really very interesting to the student of Phrenology. The question is of-

"ten asked, On what principle did Drs Gall and Spurzheim
 "map out the skull, and assign different shapes to the different
 "organs as appearing on the cranium? This collection presents
 "a most satisfactory answer to the inquiry. In cases of extreme
 "development of any particular organ, the bone situate above
 "it protrudes in the very form and dimensions delineated by
 "the founders of the science; and these skulls were selected
 "with the view of illustrating this point, and do illustrate it in
 "the most decided manner. In one skull, for example, *Cau-*
 "*tiousness* is the predominating organ, and the projection is seen
 "to be exactly of the shape and size marked in the phrenologi-
 "cal busts. In another, *Benevolence* is the leading feature; in
 "a third, *Veneration* predominates, and so on; and in each the
 "skull is seen presenting a distinct elevation of a form corre-
 "sponding to that assigned to the external indication of the or-
 "gan by Drs Gall and Spurzheim. The history of the indivi-
 "duals to whom the skulls belonged is not known, and the
 "collection was sent as evidence merely of the fact, that eleva-
 "tions of the cranium, corresponding in figure and dimensions
 "to those delineated on the phrenological busts, actually exist
 "in nature, and that the lines of demarcation are not fanciful,
 "as is generally reported and believed."

LETTER FROM DR SPURZHEIM.

To the Editor of the Caledonian Mercury.

SIR,—You were so good as to insert, in your paper of Thurs-
 day, 31st January, an answer to Sir William Hamilton, which
 I intended to be final; but his letter published in your number
 of Monday, the 4th of February, makes it necessary for me to
 add some explanation to your readers, and I now trouble you
 and them for the last time. I depend on their good sense that
 they do not think me bound in duty to prove, that three propo-
 sitions, which Sir William assumes to be mine, are inexact. He
 is the accusing party; hence let him prove his accusation, and,
 instead of drawing interpretations, let him copy from my printed
 works the passages in which I maintain the views attributed to
 me, and combated by him.

Sir William asserts, that he has taught me the views which I
 now maintain regarding the frontal sinus; but I am constrained
 to declare, that hitherto I have learned nothing from Sir Wil-
 liam, who, by not bringing forth from my works the exact pas-
 sages on which he founds his three *supposed* propositions, betrays
 that he did not understand Phrenology as I taught it in 1815
 and 1816, and who, by not attending any of my demonstrations,
 shows that he is unwilling to become acquainted with the pro-

gress this science has made since that time. Your readers will easily conceive, that I could not learn my doctrine on the frontal sinus from him, seeing that all the specimens of the various modifications of it, through all ages, from new-born children to very old age, in the state of health and disease, shown by me in Edinburgh, were collected in Paris, whence I brought them to England, and seeing also that I taught the same doctrine in London, Bath, Bristol, Cambridge, and Hull, which I repeated in Edinburgh.

But Sir William, forgetting the old saying, *nec sutor ultra crepidam*, proposes to teach anatomical points unknown, I am sure, to all lecturers on anatomy in this city. *The cerebellum*, says he, *has its full growth at three years, and the brain at seven years of age. The cerebellum, moreover, is absolutely larger in women than in men, and probably so in females than in males.* To my knowledge Dr Gall never saw such things. I also confess, that, during the twenty-seven years that I have studied the structure, functions, and diseases of the brain, I have never been able to perceive facts to support the above-mentioned assertions of Sir William; and M. Chausier, formerly professor of anatomy and physiology in the university of Paris, who paid particular attention to this subject, and who *professedly* wrote on it, notwithstanding of his great opportunities of examining brains both of children and adults, states, in his *Exposition de l'Encephale*, published in 1808, the contrary of what Sir William undertakes to demonstrate. I shall be glad to see him prove *publicly* his assertions as soon as he finds it convenient, even by the fifty skulls on which he *fully* relies. At the same time, I regret not being able to say, *His gloriamur inimicitiiis.*

I am, Sir,

Your very obedient servant,

G. SPURZHEIM.

Edinburgh, 6th February, 1828.

II. CORRESPONDENCE BETWEEN SIR WILLIAM HAMILTON AND DR SPURZHEIM, NOT PREVIOUSLY PUBLISHED.

SIR WILLIAM HAMILTON TO DR SPURZHEIM.

SIR W. HAMILTON presents compliments to Dr Spurzheim, and requests permission to inquire, whether Dr Spurzheim consents to try the truth of Phrenology in the points at issue, by an induction of skulls, taken indifferently from the various collec-

tions in Edinburgh ; the age, sex, health, &c. to be rigorously determined, without interference of the parties, or relation to the questions in dispute, by the skill, and on the honour of the anatomists through whom they are obtained.

Sir W. Hamilton, on his part, is willing that Dr Spurzheim's series of crania should be purified from any "monstrous," "sin-gular," and "anomalous" specimens, if such it really contains, by any of the public teachers of anatomy in this city whom Dr Spurzheim may prefer. He likewise offers to include the skulls belonging to the Phrenological Society in the induction, provided, that their *whole* collection be submitted, *without reserve*, to the same impartial determination. Crania, not European, to be taken, *cum nota*, in reference to the frontal sinus ; and in regard to other points, those of children and of males and females, only of the same race, and in equal proportions, to be compared together.

16, Great King Street, 16th February, 1828.

DR SPURZHEIM TO SIR WILLIAM HAMILTON.

DR SPURZHEIM returns compliments to Sir William Hamilton, and, in answer to Sir Wm.'s note of yesterday, begs leave to say, that he examined the skulls sent from Paris, and those preserved in the public and private collections at Edinburgh,—that he explained, and continues to explain, to the public at large, his doctrines on Phrenology,—and that it is not his fault if Sir Wm. Hamilton, though invited by Dr S., did not think it proper to attend any of Dr Spurzheim's demonstrations, or to look at any of the evidences which he brings forth. On the other hand, Sir Wm. Hamilton does not stand in need of Dr Spurzheim's "*permission*" to refute Phrenology whenever and wherever he pleases ; Dr Spurzheim, however, repeats the statement already made in the Caledonian Mercury, that he is willing to meet Sir Wm. H. as soon as Sir Wm. may be ready to prove PUBLICLY his assertions. It is evident that Sir Wm. has the right to proceed as he likes, and to appear alone or in company of all teachers of anatomy in Edinburgh, to whom he alludes in his note. The only thing upon which Dr S. insists is, that Sir Wm. shall not confine his decision to a written document signed by his friends, but shall bring all his evidence before the public, and allow Dr S. to put any question concerning the contested points to Sir Wm. Hamilton or to his supporters. Dr S. also desires Sir Wm. H. not to wait till Dr S. has left Edinburgh, to exhibit publicly the evidence of his assertions. From not attending to this circumstance, Sir Wm. could not be free from the charge of having alleged assertions which he could not substantiate in Dr Spurzheim's presence.

Edinburgh, 16th February, 1828.

SIR WILLIAM HAMILTON TO DR SPURZHEIM.

SIR WILLIAM HAMILTON presents compliments to Dr Spurzheim, and regrets, though he is not astonished, that Dr Spurzheim refuses to join in any induction, by which the *assertions of Phrenology* would be held up in collation with the *facts of Nature*. Sir William has done every thing in his power to manifest the rigorous impartiality of his proof; and he flatters himself, that he has succeeded in placing in a strong contrast, his own anxiety and the reluctance of his opponents, to bring the truth of their several positions to the proper test.

Sir William has applied for ALL the *female crania* extant in the different anatomical collections of Edinburgh, and he has employed ALL indifferently. The sex of many of these is known independently of anatomical criteria. The others have been discriminated by the most skilful judges; and no specimen has been admitted, in regard to the sex of which any doubt has been entertained. The same has been done in respect to *ante-puberal crania*. From all the anatomical collections all the skulls have been obtained the teeth of which evidence the proper age.

In regard to *male crania*, which are preserved in far greater numbers than those of women, Sir W. Hamilton offers to allow Dr Spurzheim himself to fix, without selection, on the adequate complement, in any of the anatomical musæ.

Having done thus much, and expressed his willingness to include Dr Spurzheim's own collection, under the most favourable conditions—indeed under any terms Dr Spurzheim himself may choose—and to admit the skulls belonging to the Phrenological Society, Sir William is confident that nothing more on his part could possibly be performed, to decide the question on fair and liberal principles, nay, even on principles more partially favourable to the Phrenologists. He begs Dr Spurzheim himself to state, whether he can conceive it possible to act more generously by an opponent, without absolutely compromising the interest of truth.

In regard to Dr Spurzheim's insinuation, that the Edinburgh lecturers on anatomy are his "*friends*" and "*supporters*," Sir W. Hamilton must observe, that, if it is meant that a disbelief in the phrenological anatomy constitutes them his friends, they are probably so, not less than all other anatomists alive and dead; but if it is hereby whispered, that their impartiality is not to be trusted in their scientific determination of the subjects of his induction, so unworthy an insinuation can only recoil on the head of him who could imagine the possibility of such a supposition. Sir William may be somewhat strict in his notions on this subject; but he can assure Dr Spurzheim, that he would as soon forge a bill as colour a philosophical fact; and

even the most infatuated of the phrenological multitude, will, he thinks, begin to suspect the delusion of a doctrine, which can only be supported by innuendos against the integrity of whole classes of honourable men.

If Sir W. Hamilton's attendance on Dr Spurzheim's physiological lectures were of the smallest relevancy to the present question, as it is of none, how could he, with any delicacy, have availed himself of Dr Spurzheim's invitation, after his attendance was subsequently so unceremoniously prohibited by Dr Spurzheim, in his second letter in the *Caledonian Mercury*?

Sir William has only to add, that Dr Spurzheim will have ample opportunity, privately to scrutinize, and publicly to canvass, the accuracy of his measurements. Dr Spurzheim is at present only commencing a new course of lectures; but, that no time may be lost, that part of the induction which is already finished, shall, if Dr Spurzheim pleases, be submitted to him without delay. The earlier completion of the whole induction has only been prevented by its extent, minuteness, and elaborate accuracy.

16, Great King Street, 17th February, 1828.

DR SPURZHEIM TO SIR WILLIAM HAMILTON.

DR SPURZHEIM returns compliments to Sir Wm. Hamilton, and begs to remark, that in Dr S.'s letter to him, Dr S. says, that he has seen the skulls in the different collections at Edinburgh. If it be necessary, Dr S. adds, that all these skulls do not refute any phrenological opinion which he entertains. It is incomprehensible to Dr S. how Sir Wm. could find in Dr S.'s letter insinuations against the anatomists of Edinburgh. Dr S. disclaims all such, and his letter does not justify Sir Wm. in imputing them. Sir Wm. Hamilton *publicly* attacked Phrenology before Dr S. visited Edinburgh; it is now Sir Wm. Hamilton's duty to prove *publicly* his assertions. Dr S. therefore repeats, for the fourth and last time, that he is willing to meet Sir Wm. H. before the public. Dr S. also repeats his desire, that Sir Wm. may not wait till Dr S. has left Edinburgh, to exhibit the evidence of his assertions. This cannot be difficult, since it is but common sense to think, that Sir Wm. had collected his proofs before he appeared as an opponent of Phrenology.

Edinburgh, 16th February, 1828.

SIR WILLIAM HAMILTON TO DR SPURZHEIM.

SIR W. HAMILTON presents compliments to Dr Spurzheim, and, in answer to his yesterday's letter, observes, that the fact, repeatedly stated by Dr S., of his having "examined the skulls pre-served in the public and private collections at Edinburgh"—a fact, however, of which the custodians of the most extensive are not aware—is of no importance; as the question is not, whether Dr S. has looked at nature, but whether he has truly reported her realities. Sir W. cannot, of course, deny that these crania "do not refute the phrenological opinions which Dr S. *entertains*;" he only knows that they utterly explode the phrenological doctrines which Dr S. *has published*.

Sir W. H. having gained all he wanted, in manifesting that he is simply desirous of the truth, while his opponent seems merely anxious to elude the effect of an inquiry, has only, in reply to the caution, that Sir W. would "not wait till Dr S. had left Edinburgh, to exhibit the evidence of his assertions," to state, that on his part he is only apprehensive—from the very caution itself—lest Dr S. should suddenly escape; as he would regret if any thing were wanting to consummate the impending exposition of phrenological credibility. Sir W. therefore requests, that, if Dr S. does not mean to conclude his present course of lectures, he may send Sir W. warning a fortnight previous to his departure.

16, Great King Street, 19th February, 1828.

DR SPURZHEIM TO SIR WILLIAM HAMILTON.

DR SPURZHEIM returns compliments to Sir William Hamilton, and does himself the honour to state, in compliance with Sir William Hamilton's wishes, that he will be ready to meet Sir William publicly any day that may be convenient for him, between this day and Thursday, the 6th of March next.

Edinburgh, 20th February, 1828.

SIR WILLIAM HAMILTON TO DR SPURZHEIM.

SIR W. HAMILTON presents compliments to Dr Spurzheim, and as he has now nearly collected all the subjects of his induction, he begs again to repeat his offer, of sending Dr Spurzheim a note of his measurements, and of submitting the various specimens to his examination. Sir W. is likewise ready to meet Dr Spurzheim, and to afford him every explanation that may tend to facilitate his scrutiny.

16, Great King Street, 27th February, 1828.

DR SPURZHEIM TO SIR WILLIAM HAMILTON.

DR SPURZHEIM returns compliments to Sir William Hamilton, and again states, that his published doctrines are the result of many years' examination, repeated in various countries, and under the most different circumstances; consequently, that he cannot be satisfied with a mere private explanation, which Sir William offers to give. Moreover, Phrenology and its believers, as well as Dr Spurzheim, having been *publicly* attacked by Sir William, and *publicly* accused of "credulity and of infatuation," and of being, "*without exception, the most erroneous of observers recorded in the whole history of science,*" the phrenological public, or, as Sir William calls them, "the phrenological multitude," or "mob," insist upon their right to ask for a public refutation.

Dr Spurzheim repeats, *for the fifth time*, his readiness to meet Sir William Hamilton *before the public*, any day betwixt this and the 6th of March next.

Edinburgh, 28th February, 1828.

SIR WILLIAM HAMILTON TO DR SPURZHEIM.

SIR W. HAMILTON presents compliments to Dr Spurzheim, and begs leave to observe, that in repeatedly offering Dr S. every information, aid, and facility, in sifting the accuracy of his anti-phrenological induction, far from supposing that a private meeting for this purpose was to foreclose Dr S. from publicly criticising this evidence, he was only anxious, lest, through any omission on his part, Dr S. might not be fully armed for the attempt. Though personally averse from any thing like a public exhibition, and though convinced that a crowd is neither the audience to understand, nor a crowded assembly the place to detail, the evidence of an anatomical induction, Sir W. is too thoroughly convinced of the certainty of his proof, not on other accounts to court an opportunity of manifesting, in the most open manner, the unsoundness of the opinion he controverts. He therefore acquiesces in Dr Spurzheim's proposal of a public discussion. The points at issue are purely anatomical, and it only remains for Dr S. to mention the persons most competent to the task, whom he would propose as umpires on the occasion.

16, Great King Street, 28th February, 1828.

DR SPURZHEIM TO SIR WILLIAM HAMILTON.

DR SPURZHEIM returns compliments to Sir Wm Hamilton, and begs leave to observe, that, if Sir W. had *privately* intimated

to Dr S., that he is in possession of facts which may convince Dr S. of the "unsoundness" of his opinions, Dr S. would have thankfully availed himself of a private meeting with Sir W., and received from him private instruction in Anatomy and Physiology; but since Sir W. *publicly* attacked Phrenology and its believers, Dr S. can meet him only before the public. Moreover, as the truth or falsehood of Phrenology depends neither on what Drs Gall and Spurzheim nor Sir William Hamilton say, nor on the opinions of umpires, but solely on the invariable laws of nature, Sir William has nothing to do but to bring before the public the proofs from which he draws his conclusions. Dr S. requests, for the sixth time, that Sir W. H. will name a day and place when Dr S. may meet him in public, and this before the 6th of March next. Sir W. is requested to lose no time in doing this, as several days' notice of the meeting must be given to the public, that they may attend. All other proceeding is unphilosophical, and all correspondence to any other purpose in vain.

Edinburgh, 29th February, 1828.

SIR WILLIAM HAMILTON TO DR SPURZHEIM.

SIR W. HAMILTON presents compliments to Dr Spurzheim, and takes the liberty of saying, that Dr S. has acted precisely as he has all along anticipated he would do. Sir W. was well assured that Dr S., though *professing* to desire a public discussion, would never be brought to submit the truth of his doctrine to an audience, any part of which was competent, at once to form a correct opinion, and to embody that opinion in an authoritative verdict. If driven to the worst, Dr S., he was satisfied, would only venture to give an irrelevant lecture to an idle mob, without knowledge, as without a voice; and thus afford the opportunity to his friends of issuing a fallacious narrative under the imposing form of a report. The points at issue can only be decided by a patient investigation of anatomical measurements; and a Phrenologist alone could propose to determine their accuracy, by submitting these, for an hour, to a tumultuary flock of men and women, who had probably never handled a cranium in their lives. Sir W. has too much self-respect, and too great a deference for truth, to co-operate in a proceeding which would only serve to turn himself into derision, and to amuse or to delude the public. Sir W. is, however, now, and at all times, ready to meet Dr S. or his adherents, before any competent tribunal, to prove in their teeth, the ludicrous falsity of phrenological facts. He is willing to allow Dr S. to nominate the umpires, and defies him to point out any collection of skulls, on which the craniological positions can be established. Dr S. avers, that "his doctrine is the result of an

"examination repeated in various countries." Phrenology, if true at Vienna, cannot be false at Edinburgh; and it is absurd in Dr S. to think of supporting his own accuracy by his own assertion, when it lies before him to silence scepticism by the easiest of appeals to nature. *Hic Rhodus, hic saltus*. It is also profitable to hear Dr S. confess, that "the truth or falsehood of Phrenology does not depend on what Drs Gall and Spurzheim say," seeing that Drs G. and S. have to this hour only *asserted*, and never, by articulate induction, *proved* a single fact; while, in the same breath, it is also coolly proposed to refer the determination of "the invariable laws of nature" to a populace, who know nothing of these laws, except on the dicta of those by whom they may chance to be addressed. It also baffles an uninitiated comprehension, how Phrenology can rest true, and yet the opinions of its founders, with which it is identical, be found false.

Dr S. having thus declined the only public meeting which would not be conducive to the propagation of error, Sir W. has only now to publish his state of facts. In the meanwhile, the subjects of induction will be open, on application to Sir W., for the examination of Dr S. and his friends until the 14th of March.

16, Great King Street, 29th February, 1828.

DR SPURZHEIM TO SIR WILLIAM HAMILTON.

Dr SPURZHEIM returns compliments to Sir Wm Hamilton, and, in answer to his letter received to-day, takes the liberty of saying, that as Sir William refuses to show the evidences of his opinions to the public in the presence of Dr S., though he thought it very convenient to attack Phrenology *publicly*, without being supported by proper evidence, Dr S. will be glad that Sir W., according to his promise, shall "*publish his state of facts*," as soon as his state of mind is become calmer than it seems to be at this moment.

Edinburgh, 1st March, 1828.

SIR WILLIAM HAMILTON TO DR SPURZHEIM.

SIR W. HAMILTON presents compliments to Dr Spurzheim, and having been informed that Dr S., on Wednesday, examined the crania which constitute the subjects of Sir W.'s induction, and that he is again to visit the Anatomical Museum to-morrow, begs leave to say, that if Dr S. should find any objection to any of these skulls, he is ready to reject the specimen at once, or to

submit the validity of the objection to whatever anatomist of eminence Dr S. may be pleased to name. If Dr S. declines this, Sir W. still offers, if Dr S. will mark and lay aside any cranium, stating the specific ground on which he would object to its evidence, to take the opinion of all or any of the practical anatomists in Edinburgh on the point. Sir W. only adds, that he will treat with the most profound contempt, every general and unauthenticated assertion which Dr S. or his adherents may, hereafter, find it convenient to make in regard to the present induction; for even the credulity of the "phrenological public" can hardly be carried to such transcendent absurdity, as to attribute any the smallest weight to objections which Dr S. dares not prefer *at the time*, and *in the form*, necessary, equally for their establishment and articulate refutation.

Sir W. also encloses three short notes which he proposes to append, when he has occasion to quote Dr S.'s last (and unanswered) letter in the Caledonian Mercury; and he is willing to annex any observations which Dr S. may be disposed to make in reply.

16, Great King Street,
(Friday Morning,) 7th March, 1828.

1. On "*cerebellum*—age."—The Phrenologists are as rarely correct in their quotation of opinions, as in their report of facts. My doctrine is, that the *cerebellum* reaches its full proportion to the brain at *three*, and that the *encephalon* (brain and cerebellum) obtains its ultimate size about, or soon after, *seven* years old.—(See Counter Propositions IX and X.) It is worthy of remark, that Gall makes a similar misrepresentation of the doctrine of the Wenzels on this very point.—(Anat. et Phys. du Cerv. III. p. 93.) It is always easier to attribute an absurdity than to refute a truth.

2. On "*Cerebellum*—males."—I beg that this nonsense may not be attributed to me.

3. "*Chaussier*—demonstrates."—One not aware of the total incapacity for accurate observation and correct statement, manifested by the Phrenologists, would be surprised to hear, that Chaussier, directly or indirectly, neither contradicts my real opinion, nor even that so erroneously attributed to me by Dr S. I have adduced Chaussier's authority against Phrenology, but the Phrenologists can find nothing in that eminent anatomist against me.

DR SPURZHEIM TO SIR WILLIAM HAMILTON.

DR SPURZHEIM returns compliments to Sir W. Hamilton, and, in answer to his letter of yesterday, begs leave to say, that Dr S., in Phrenology, relies only on the authority of nature, and that he wishes every one might do the same. Sir William is

mistaken in supposing that Dr S. intended to visit again the anatomical collection in the College ; but Dr S. takes the liberty of reminding Sir W. H., that he attacked Phrenology publicly, and that Dr S. and the Phrenologists of Edinburgh demand, as matter of right, a public refutation. The 6th of March is past, and Sir W. has not met Dr S. before the public. Sir W., however, has promised to publish the state of his facts. Dr S. has already requested Sir W. to do this as speedily as possible ; and he now begs leave to add, that, if Sir W. really intends to bring his assertions to trial, he will leave the evidence on which he founds his conclusions open to the inspection of the phrenological public for a reasonable time *after* publication of his statement, so that a fair opportunity may be afforded to all taking an interest in the discussion, of comparing the assertions with the proofs. If Sir W. shall withdraw the evidence *before* publishing his statement, every intelligent person will form his own opinion of the propriety of such a proceeding. The Phrenologists of Edinburgh have left their evidence open to public inspection one day in the week, for six years past, and they continue to do so ; hence they have the right to demand of their opponents a corresponding degree of publicity.

Res non verba quæso.

The 8th March, 1828.

SIR WILLIAM HAMILTON TO DR SPURZHEIM.

SIR W. HAMILTON presents compliments to Dr Spurzheim, and, in reply to his letter of the 8th, begs leave to remind him, that the establishment of Phrenology is proclaimed by its propagators to be, on their part, a war of extermination against all other systems of psychology ; to *attack* the new opinion was, therefore, only to *defend* the old. If Sir W. read *two* papers in refutation of their hypothesis, within the walls of the Royal Society, where all opinions are freely canvassed by philosophers of every sect, the Edinburgh Phrenologists have read, at least, *two hundred* against doctrines which he maintains, or may maintain, within the sanctuary of their own Society, which excludes all disbelievers in Phrenology, by law. If Sir W. gave a *single lecture in refutation*, Dr Spurzheim and Mr Combe have delivered above *twenty courses in support*, of the revolutionary theory ; and even to that one lecture by Sir W., Mr Combe rejoined by another professedly in *answer*. The balance is thus all in favour of Phrenology, and "*Dr Spurzheim and the Edinburgh Phrenologists*" cannot now "*demand, as a matter of right, a public refutation.*"

Sir W. H. was, however, always ready to *indulge* his oppo-

nents in what they had no title to *exact*; and he had too intimate an experience of their tactic, to afford them, on any ground, the slightest pretence to hold out, that he declined to demonstrate, in the face of the world, the futility of their doctrine. Dr Spurzheim's challenge, he also shrewdly suspected to be mere brava-do; and made little doubt, that, calculating on Sir William's very natural repugnance to a personal and public debate upon a subject he so thoroughly despised, Dr S. would, in fact, sweat blood and water to escape a meeting the moment his challenge was accepted. To render, however, the retreat of his opponent still more ignominious, and to blazon more conspicuously to the world, that, even by the confession of its founders, Phrenology could not stand the light; Sir W. not only closed in, at once, with the proposal of a public discussion, but, at the same time, afforded to Dr S., what, if confident in his opinions, he would have most eagerly embraced:—viz. by the appointment of arbiters, to render a popular meeting competent, in some degree to the furtherance of scientific truth; in providing it with an authority, to regulate the proceedings, to check all evasive quibbling, and to pronounce sentence between the parties on the various points to be determined. Nay, to exhibit, in its very highest climax, the conscious weakness of his opponent, in contrast with his own confidence of strength, Sir W. actually offered to leave to Dr S. the sole nomination of the umpires. The event verified the anticipation. The mention of enlightened judges, a regulated discussion, and an articulate proof, was enough. Dr S. was off; and off upon the very ground that raised a public meeting above a mountebank exhibition. So much for Dr S.'s observation,—“*The sixth of March is past, and Sir W. has not met Dr S. before the public.*”

In regard to the concluding demand of Dr S., Sir W. has only to say, that he would build a golden bridge between his opponents and his facts. Every facility has been tendered to Dr S. for near a month, to scrutinize Sir W.'s induction; in which Dr S. was first urged to co-operate—then to point out himself its subjects—then to compare Sir W.'s measurements;—and, finally, to specify any objection to any of the specimens. All these proposals Dr S. has declined; though he has twice carefully examined the crania under consideration. *Now*, to demand more, is perhaps unreasonable in Dr S.; but all that Sir W. can do in compliance, *shall be done*. He cannot promise that every one of the proprietors should conveniently want his crania so long; but all the skulls that can, shall be retained in one collection, open for examination; at any rate, every specimen is to be numbered, and the names of the various custodians shall be published.

16, Great King Street, 10th March, 1828.

DR SPURZHEIM TO SIR WILLIAM HAMILTON.

DR SPURZHEIM returns compliments to Sir W. Hamilton, and begs leave to observe, that in sciences, particularly so far as positive facts are concerned, every intelligent person may claim the right of private judgment, and that the reference of any physiological question to umpires alone is *unphilosophical*. If it had been proposed to Harvey to refer to arbitration, the circulation of the blood, would he, with propriety, have admitted as umpires, those who denied his discovery, or would his opponents have admitted converts to his doctrine as fit persons to render a final decision? And suppose their decision had been unfavourable to his discovery, would it have had any effect except proving human fallibility? The case of Phrenology is exactly parallel; it is the physiology of the brain, as Harvey's doctrine was that of the heart.

Farther, Sir W. H. proposed to name umpires with the view of "regulating the proceedings, and checking all evasive quibbling;" and Dr S. begs leave to say, that it is in order to exclude all shifting, evading, and erroneous representation, that he considers a public discussion as the only one suitable to the present case.

Sir W. Hamilton says, that every facility has been rendered to Dr S. for "near a month," to scrutinize Sir W.'s inductions; and Dr S. begs leave to reply, that no opportunity has been afforded him of scrutinizing the evidences of Sir W. *before the public*, and that it is neither the inclination nor the duty of Dr S. to convince Sir W. of the truth of Phrenology. Dr S. never refused to Sir W. the right of choosing his assistants, or of bringing to the meeting all the anatomists of Edinburgh: he only insisted upon its being Sir W. Hamilton's duty to prove his assertions *before the public*, since he had *publicly* attacked Phrenology and its believers.

In order to leave to Sir W. no excuse, Dr S. adds, that if Sir W. shall, within a fortnight from this date, name a day and hour to meet Dr S. *before the public*, and give to him seven days' warning of such a meeting, he will, although very inconvenient for himself, discontinue his lectures in Glasgow, and return to Edinburgh, in order to hear Sir W. substantiate his assertions *publicly*.

With these observations, Dr S. leaves Sir W. to proceed as he shall think proper, and declares all correspondence to any other purpose in vain. Dr S. takes no notice of the puerile boasting, and so little *professor-like* expressions, in which Sir W. indulges in his letters. Dr S. entered into, and has continued the correspondence on public grounds *exclusively*, and he leaves it to the intelligent public to decide on which side the desire or fear of publicity has been most conspicuously manifested.

13th March, 1828.

SIR WILLIAM HAMILTON TO DR SPURZHEIM.

SIR W. HAMILTON presents compliments to Dr Spurzheim, and thought, from Dr S.'s long silence, that this correspondence was at an end. In reply to Dr S.'s letter of yesterday, Sir W. has only to say, that had Harvey challenged an opponent to a public disputation; had that opponent not only at once closed with the proposal, but offered, (what he was easily able to do,) to prove by experiment, in the face of an assembly, and to the satisfaction of arbiters, *appointed exclusively by the challenger himself*, that the veins had no valves, and that the arteries, when punctured, emitted only air, agreeing at the same time to peril the whole controversy on the ocular demonstration of these essential facts; and had Harvey upon this, deserting his challenge, refused to bring his opinion to an issue before any judges, by whom the facts could be examined, but would consent only to harangue an ignorant multitude, by whom the phenomena could not even be seen, who could believe only what they happened to be told, and who had even no organ to declare the impression they passively and fortuitously received; then would the cases be "exactly parallel;" but Harvey would then have been no greater a discoverer than Gall, and the doctrine of the circulation of the blood would have been as futile as the doctrine of Phrenology.

In conclusion, Sir W. has simply to repeat, what he formerly stated, that as arbiters are only a mean to an end, if Dr S. will suggest *any other mode* by which an oral discussion can be so regulated, that the parties shall be constrained to prove articulate issues, not by *assertion*, but by *fact*—that all irrelevancy shall be checked—that objections on either side shall be peremptorily determined—and that a final decision on the several points shall be pronounced;—Sir W. is ready to meet Dr S. before the public on any Saturday, and to prove his propositions upon whatever collection of crania Dr S. may select. Sir W. may observe that, independently of other considerations, Dr S. is not the opponent he could safely encounter, without an authority capable of estimating all assertions at their proper value. The man who could, in print, coolly state at his convenience, that a series of very ordinary crania, selected by himself, were "*monstrous*," "*singular*," and "*anomalous*," on which it was incompetent to establish any conclusion whatever, (a statement Sir W. defies Dr S. to find any medical man, *even of the Phrenological Society*, to stake his reputation in confirming;) who could misrepresent his adversary's opinions; and quote authorities against these opinions which do not exist:—is not the opponent who could be trusted to take no unfair advantage of his position, before a dumb and ignorant assembly.

16, Great King Street, 14th March, 1828.

DR SPURZHEIM TO SIR WILLIAM HAMILTON.

Dr SPURZHEIM returns compliments to Sir W. Hamilton, and, in answer to his letter of the 14th ult., reminds him once more of what he seems willing to overlook, that he is the attacking party, and Dr S. the defending party, and that, in consequence, from the beginning, Dr S. declared that he leaves it to Sir William to procure the evidences of his assertion, and to take for assistant whomsoever he likes, in order to refute Phrenology. The only condition on which Dr S. insisted to meet Sir William was, that the public should be admitted, not with the view of taking their decision on the spot as an assembled tribunal, but by having the public as *witnesses*, that both Sir William and Dr S. might be spared the painful task of disputing afterwards as to what the arguments and evidences adduced really were. Dr S. also insisted on this condition, since he was aware of the manner in which Sir William Hamilton conducted the arbitration with Mr Combe. Sir William Hamilton boasted of his ability not simply to disprove Phrenology, but to demonstrate its diametrical opposition to truth; why then does he hesitate to show his evidences before the public? Dr S. has published his doctrines, and he exposes them to miscellaneous audiences, and to numerous classes of the medical profession; he thinks that any scientific controversy should be conducted in the face of all persons of education who may choose to attend, and that the proper and ultimate tribunal by which all questions of science must be decided is the great philosophical public, and not a few individuals of Edinburgh, or any other city.

Dr S. concludes by repeating, that he has seen, with regret for their author, an habitual indulgence in expressions towards Dr S., which, had Sir William alone been concerned, would long ago have precluded Dr S. from any reply. Self-respect requires Dr S. to state expressly, that he considers himself not addressing Sir William Hamilton, whose opinions he has seen no reason to value, but the public, before whom this correspondence will soon be laid, and to whom Dr S. willingly leaves to decide on the propriety of Sir William's expressions, and on all other points of the controversy.

Glasgow, Hutton's Hotel, 17th March, 1828.

SIR WILLIAM HAMILTON TO DR SPURZHEIM.

SIR W. HAMILTON presents compliments to Dr Spurzheim, and is perfectly satisfied with having compelled both Dr Spurzheim and Mr Combe so unequivocally to confess, that they *dare not*

"an idle mob," (10) without knowledge, as without a voice ;" and you requested him to name umpires to proceed to a *private discussion*. (11) This he declined, and reminded you, that you had commenced by addressing your objections to an audience of the very description to which you here alluded, (12) and that the Phrenologists, as well as the very intelligent citizens of Edinburgh, had a right to demand a public refutation, as the attack had been publicly made. You persisted in refusing to bring forward your proof in this way, but said you "had only now to publish your statement of facts." Dr Spurzheim replied, that he will be glad how soon you shall do so. Accordingly, in yesterday's Mercury, you advertised as speedily to be published, "*Fictions of Phrenology and Facts of Nature* ;" but before this publication takes place, nay, on the very day of your advertisement, and, forgetting that the umpires had fixed a mode of proof, you, in your note of yesterday, have asked me to attend before the arbiters to see you submit some new evidence in the arbitration to be adduced by yourself. (13)

I am quite ready to meet you before the arbiters at any time you please ; but respect to them as well as to consistency, requires that you, in the first place, should terminate your discussion with Dr Spurzheim, by publishing your "*Fictions and Facts* ;" and, in the next place, satisfy the arbiters regarding the principle on which you have hitherto proceeded, and intend in future to proceed. You appear to conceive yourself to enjoy an unlimited latitude of inconsistency ; and appeal to the public one day, then the next denounce them as "an idle mob ;" next revert to the public, and again decline their jurisdiction ; you hold out Drs Gall and Spurzheim as the sole objects of your attack, then refuse to assume Dr Spurzheim as a party ; nevertheless, you in a few days fix upon him, and exclude me ; next you leave him off in the middle, at least before the close, and desire me to proceed. Satisfy the arbiters of the propriety of all this, and publish whatever you have to urge against Dr Spurzheim, and I repeat, that I shall then be ready to meet you before the umpires whenever you please. (14) I am, my dear Sir, yours very sincerely,

G. COMBE.

SIR WILLIAM HAMILTON TO MR COMBE.

MY DEAR SIR,—Your letter of the 4th was so melancholy a manifestation of the torture, which the fear of being publicly crucified, under the arbitration, on the facts of nature had inflicted, that I was almost resolved to pass it over as a writhing, unseemly indeed, but pitiable ; and, in these circumstances, I meant, in case you and Dr Spurzheim had lain quiet, to have

frequently urged to print and publish your objections, you delayed doing so. (1) Next, you inserted advertisements in the newspapers, and set up men with placards at the corners of the streets, (2) inviting the public in general to come and hear you deliver an antiphrenological lecture for payment of half-a-crown. (3) Having given a lecture on my part, in answer to yours, (4) you then discovered that a private reference to umpires, to fix some points of fact, was a proper preliminary to an appeal to the public on the merits of Phrenology, and I acceded to your wishes in this particular. (5) Umpires were named, and proceeded to investigate the evidence you laid before them. They rejected it as incompetent, (6) but agreed to seek evidence themselves, by pathological dissections at the Infirmary and Fever Hospital, on the points which you had undertaken, but failed, to support (6) by proof, and to this proposition you acceded. Having heard of Dr Spurzheim's intention of passing some weeks in Edinburgh this winter, and having read in your letters, and heard you repeat in debate before the umpires, that Drs Gall and Spurzheim are the "ONLY authentic representatives of their own doctrines," and that you wished "ONLY to refute the assertions of these two founders," I proposed to you to devolve the reference on Dr Spurzheim; but this you declined. I acquiesced in your declination, and expressed my readiness to proceed with you to a close. After this, and without the least communication with me, you thought proper again to attack Phrenology before the public, in the Caledonian Mercury of 21st January, 1827; (8) to bring forward all your antiphrenological propositions then under reference to the umpires, to omit all mention of the fact, that the umpires had rejected all the evidence of them you had then adduced, and had agreed to go in quest of evidence themselves; and, nevertheless, in this state of matters, and after having declined to admit Dr Spurzheim as a party, you called on *Dr Spurzheim* "to manifest, if that be possible, the futility of your counter-propositions," and asked him to do so by means of the very 50 skulls which the arbiters had already rejected. (9) I replied in the Mercury to this most irregular and unfounded manifesto, and the controversy was supported in its columns, between yourself on the one hand, and Dr Spurzheim and me on the other, until 31st January, when you wrote, "I say nothing in reply to Mr Combe, as I beg leave to decline his interference in the present controversy between Dr Spurzheim and me." By your own act I was thus excluded; and, after having declined to take Dr Spurzheim as your party, you fixed on him alone. A correspondence next ensued between you and Dr Spurzheim, which I have perused, in which he called on you repeatedly to name a day for bringing forward your evidence before the public, and offered to attend; but in which you declined to proceed before a mixed audience, stigmatizing them as a *multitude* and

"an idle mob," (10) without knowledge, as without a voice ;" and you requested him to name umpires to proceed to a *private discussion*. (11) This he declined, and reminded you, that you had commenced by addressing your objections to an audience of the very description to which you here alluded, (12) and that the Phrenologists, as well as the very intelligent citizens of Edinburgh, had a right to demand a public refutation, as the attack had been publicly made. You persisted in refusing to bring forward your proof in this way, but said you "had only" now to publish your statement of facts." Dr Spurzheim replied, that he will be glad how soon you shall do so. Accordingly, in yesterday's Mercury, you advertised as speedily to be published, "Fictions of Phrenology and Facts of Nature ;" but before this publication takes place, nay, on the very day of your advertisement, and, forgetting that the umpires had fixed a mode of proof, you, in your note of yesterday, have asked me to attend before the arbiters to see you submit some new evidence in the arbitration to be adduced by yourself. (13)

I am quite ready to meet you before the arbiters at any time you please ; but respect to them as well as to consistency, requires that you, in the first place, should terminate your discussion with Dr Spurzheim, by publishing your "Fictions and Facts ;" and, in the next place, satisfy the arbiters regarding the principle on which you have hitherto proceeded, and intend in future to proceed. You appear to conceive yourself to enjoy an unlimited latitude of inconsistency ; and appeal to the public one day, then the next denounce them as "an idle mob ;" next revert to the public, and again decline their jurisdiction ; you hold out Drs Gall and Spurzheim as the sole objects of your attack, then refuse to assume Dr Spurzheim as a party ; nevertheless, you in a few days fix upon him, and exclude me ; next you leave him off in the middle, at least before the close, and desire me to proceed. Satisfy the arbiters of the propriety of all this, and publish whatever you have to urge against Dr Spurzheim, and I repeat, that I shall then be ready to meet you before the umpires whenever you please. (14) I am, my dear Sir, yours very sincerely,

G. COMBE.

SIR WILLIAM HAMILTON TO MR COMBE.

MY DEAR SIR,—Your letter of the 4th was so melancholy a manifestation of the torture, which the fear of being publicly crucified, under the arbitration, on the facts of nature had inflicted, that I was almost resolved to pass it over as a writhing, unseemly indeed, but pitiable ; and, in these circumstances, I meant, in case you and Dr Spurzheim had lain quiet, to have

simply refuted your doctrine, without exposing you personally to the world, in all the ludicrous contortions of your polemical agony. What I last night learned, has, however, altered my resolve. I am informed that my opponents thought it better to anticipate the expected publication of the documents on my part, and that your letter, along with my recent correspondence with Dr Spurzheim, was read, and (for the lookers-on, very amusingly) discussed, at the last meeting of the Phrenological Society. The portentous mis-statements it embodies, formed, however, as was to be expected, no part of the debate. (The Phrenologists, indeed, by the way, seem to think themselves emancipated, in all relations, from every regard to the correctness of their allegations; and, in reference to myself, I have good reason to *protest against any credit being accorded to aught asserted by them of me, either in public or in private, either in lectures or in print.*) This publication and discussion by the Phrenologists among themselves, induces me to signalize, once for all, the very dignified and candid manner in which you are pleased to conduct a controversy; while it also authorises me to take what steps I may deem expedient, in bringing the whole correspondence before the tribunal of the public. As I would avoid the irksome labour of recapitulating your statements, I beg leave to send you my observations under the form of notes.

1. None but the Phrenologists could have dreamt that I had not as good a right as themselves, and as all other speculators, to canvass a scientific doctrine, where and when I chose, and to publish or not to publish my opinions, in conformity to my own humour and caprice. Doctors Gall and Spurzheim lectured against all mortal systems for fifteen years; and they, I am well assured, were never pestered by the feverish anxiety of any other theorists, "to print and publish their objections." You yourself, have, I understand, privately circulated a pamphlet, in which, *following me*, you maintain that Phrenology involves the melancholy doctrine of a material necessity,—a doctrine on which man has no more moral responsibility than a jack. Have you been "urged" by the clerical associates of your sect to *publish* this argument against their own professional utility? For though you do not perceive its issue, those better versed in metaphysics and theology, are well aware that it must subvert, if true, every ground, in natural religion, for the existence of a God, and otherwise, explode Christianity in disproving the possibility of sin. It was, perhaps however, cruel to keep my victims so long in suspense before indulging them with the *coup de grace*.

2. I beg leave, in answer to this very dignified and pertinent allegation, to say, that I should blush indeed, could I be thought capable of so vulgar a piece of quackery. This mode of decoying the multitude to the lecture-room, is purely phrenological; and in the annals of scientific teaching, *belongs, I should imagine, EXCLUSIVELY TO YOURSELF.*

3. This is either the veriest twaddle, or there is an insinuation (which I shall not stoop to characterize) intended for those who know nothing of the circumstances, that my lecture was for any profit of my own. Whatever Phrenology has been to you, its refutation neither has, nor ever can be of any emolument to me. It has cost me a little time, and afforded me some amusement; but truth was my sole motive in abating an opinion, which cast a ridicule on the country, and had absolutely become almost a common nuisance.

4. It is amusing to hear you talk of *answering* a demonstration which you and the leading Phrenologists durst not venture to witness—not one iota of which you were able to invalidate—and the facts and arguments of which you did not know, did not comprehend, misrepresented, or eschewed.

5. I only wished to compel my opponents themselves to confess the absurdity of their facts, and to bring my refutation to the level of the multitude whom I attempted to satisfy of their hallucination.

6. See note 9.

7. Upon very good grounds. See above, pp. 18, 19.

8. Could I not, without Mr Combe's permission, defend myself when attacked? Could I not, without abandoning my controversy with him, engage, at my own choice, in another with Dr Spurzheim? And could I not propose the same points for discussion to both my antagonists?

9. It is sad to be obliged to reply to such statements. The umpires had nothing to do in my controversy with Dr Spurzheim; and they *never saw, never considered, and never rejected the fifty skulls*. And if they had, there were other crania in Edinburgh on which to refute the craniological hypothesis. It was, however, in part to disprove before the umpires, the marvellous assertions, which, after Dr Spurzheim, you have ventured to advance in regard to these skulls, that I wished them to meet. In regard to your other allegations, you know as well as I, that it was *only* at the *far* end of the second meeting of the umpires, (and owing to circumstances which, I have it under your hand, did not originate with me, we had only *three*,) that *I had any opportunity of adducing evidence*. The *third* was appointed by you yourself, in the Phrenological Hall, where I certainly had no evidence; and this meeting was only called to deliberate about future proceedings. At the end of the second meeting, I merely produced, in confutation of the phrenological proposition, that the frontal sinus is rarely to be found in women, the *thirteen female crania* from Dr Spurzheim's collection. You professed not to know that the sex was discriminated by Dr S., and the arbiters did not think themselves competent to decide that they were accurately marked. You agreed to write for information to Dr S. The sinuses also, were *at that time*, only in general, opened so as to be measured by a probe; and you disputed every

measurement. It was by all parties agreed to supersede the evidence of these *thirteen crania on this point*, and for *these special reasons*; but there was no decision minuted, even to that effect. Yet admitting this, it was worthy of the cause which you so congenially support, to assert, that because a *few* of the crania had been found, on *temporary* and *particular* grounds, incompetent to establish *one subordinant* point, that the *whole* collection is, on *permanent* and *general* grounds, incompetent to evidence *any conclusion at all*. The decision could, in fact, however, have no relevancy whatever *at present*, and *in relation to Dr Spurzheim*. Dr S. cannot impugn the accuracy of his own *sexual discrimination*: and a sinus is now fully displayed in every skull of the collection.

10. Who does not perceive that the expressions have here nothing to do with the *personal respectability*, or even with the *general intelligence* of the audience? The most fashionable assembly would be a mere populace, in the determination of anatomical problems.

11. You say you have perused my correspondence with Dr Spurzheim. But your genuine Phrenologist can only perceive a fact or report a statement, *by contraries*. My answer to the wish which Dr S. professed for a public discussion, was, as you know, in the following words:—"Though personally averse from any thing like a public exhibition, and though convinced that a crowd is neither the audience to understand, nor a crowded assembly the place to detail the evidence of an anatomical induction; Sir W. is too thoroughly convinced of the certainty of his proof, *not, on other accounts, to court an opportunity, of manifesting, in the most open manner, the unsoundness of the opinion he controverts*. HE THEREFORE ACQUIESCES IN DR SPURZHEIM'S PROPOSAL OF A PUBLIC DISCUSSION. The points now at issue are purely anatomical, and it only remains for Dr S. to mention the persons most competent to the task, whom he would propose as umpires on the occasion."

12. To my demonstration you gave, what you were pleased to call, an *answer*. Phrenology and I are therefore quits on this score. It is also a logic peculiar to my opponents, to infer, that because a *public lecture* can be profitably delivered, a *public discussion* can be rationally conducted, without an authority in the meeting, to regulate and to decide.

13. It requires more acuteness than I possess, to perceive why two birds may not be killed with one stone, and two antagonists not be refuted on the same points, by the same evidence.

14. Knowing, as I do, the issue of my induction, I should certainly, after the publication of my statement, deem it an idle encroachment on my own, and on the patience of any reasonable men, to repeat before them, the evidence in refutation of a doctrine, which, from its own futility, and the mode in which it is defended, I now regard as all too contemptible for controversy.

I have undertaken to assassinate Phrenology, not to lay its spectre. *Si populus vult decipi, decipiatur.* I remain, my dear Sir, very truly yours,

W. HAMILTON.

16, Great King Street, 8th March, 1828.

MR GEORGE COMBE TO SIR WILLIAM HAMILTON, BART.

Edinburgh, 10th March, 1828.

MY DEAR SIR,—Whatever contests you and I may maintain in our characters of Phrenologist and Antiphrenologist, I presume there is no necessity for our quarrelling as individuals; and as, in your letter of the 8th March, you introduce certain topics and expressions which have a natural tendency to produce this last result, and are not relevant to the points under discussion between us, I, in the spirit of perfect amity, beg leave to point them out, not doubting but that they will be removed.

The object of my remark on the mode in which your antiphrenological lecture had been announced, was merely to show that you had commenced by collecting a miscellaneous audience, but I intended nothing disrespectful to yourself. The impression in my memory was, that I had seen your lecture placarded at the corners of the streets; but as you say not, then I request you to hold the statement to that effect as withdrawn. As to the allusion "to payment of half-a-crown" in my letter, the object of introducing it, was to call your attention to the fact, that, in your attack on Phrenology, no discrimination was used in admitting the audience. In the public newspapers you invited all who chose to pay that sum to attend and hear you demonstrate the futility of the phrenological doctrines. I am surprised, therefore, that you could conceive me to impute to you the pocketing of the money. I considered the fact, that your lecture had been delivered for relief of the distressed operatives as so perfectly well known, that no person who did not seek to make a mistake, could possibly fall into error on the subject.

You are pleased to introduce some uncourteous remarks on the placarding of my lecture in answer to yours. I consider the expressions in which you habitually indulge as indications of the soreness of your own mind, and therefore pass them over, as calculated to injure only yourself and your own cause. My lecture was advertised and placarded exclusively by the committee for the distressed operatives, and I feel no uneasiness about the manner in which they managed its publication. Their object was to draw as large an audience as possible, and whatever conduced to this, and was not inconsistent with propriety, met my entire approbation.

In your note 1, you introduce a long series of remarks on a

pamphlet which you say you "understand I have privately circulated." It is quite true that I have privately circulated a pamphlet, but diametrically opposite in character to what you represent. If you have not seen "the Essay" to which you allude, how can you be justified in characterizing it as you have done? Nay, misrepresenting it to the utmost extent possible, in a letter designed for publication? My own conviction was, that I had strengthened and systematized the proofs of design, wisdom, and goodness in the Deity; and a pretty numerous circle of friends, not destitute of metaphysical acumen, are of opinion that this conviction is well founded. If you have seen the Essay, you must have observed, what stares every reader in the face, namely, the caveat given in the preface, that "*I rely on the honour of every individual to whom the Essay may be presented, that it shall not be reprinted, reviewed, nor publicly criticized, but that it shall be treated in good faith as a PRIVATE COMMUNICATION.*" My object, as is there fully explained, was to present it to reflecting individuals acquainted with Phrenology, who take an interest in the improvement of mankind, and in whose honour I had confidence, "soliciting, in return, a free communication of their opinions regarding it;" informing them, at the same time, that it had been printed "*exclusively for private distribution; that it is not published, and not sold; so that, if it should contain important errors, injurious to the public, it is in my power at any time to suppress it; and pledging myself to do so whenever such mistakes are pointed out.*"

Let me put it to your candour, therefore, whether a communication made in confidence, upon honour, and for the purpose of obtaining private criticism previously to publication, can fairly or honourably be even adverted to, not to say stigmatized, by you, to whom no copy was presented, in a letter intended for the public eye, on topics altogether unconnected with the Essay in question? For my own part, I care nothing for your denunciation. I have received many valuable remarks on the Essay, and intend speedily to publish it, after availing myself of these; and you and the public will then enjoy a legitimate right to treat it according to its deserts. But in the mean time, for the sake of your own honour, I take the liberty to suggest, what I conceive justice also dictates, that you should withdraw the note, or paragraph, in which allusion is made to this private communication; in which event, all notice of it in this letter will also be omitted. I trust that I need say nothing farther on this point; yet I cannot avoid observing, that it would be just as fair and correct on my part, to inquire concerning the private and confidential remarks which you have made at any time on the doctrines of Spinoza, and to charge you with atheism. This would be an appeal to the religious feelings of the public, with a view to prejudice you, that would reflect

disgrace on any man pretending to the character of a philosopher, and I do no such thing. But if you shall persist in retaining *for the public eye*, a paragraph which alludes to a subject utterly unconnected with our phrenological controversy, the public will not be slow in judging whether this has been done from a conscientious regard for the interests of religion, or whether it has not been thrust in with the hope not only of exciting an unjust prejudice against me, but also of withdrawing attention from the actual merits of the controversy, after finding yourself on the losing side.

After the turn which you have now given to the correspondence, I decline entering into any farther discussion with you in this form. I repeat, that I am ready to meet you before the arbiters on any day which you may appoint, and if they shall be of opinion that the arbitration ought at present to be proceeded with, before you have published your statement against Dr Spurzheim, I shall cheerfully obey their commands. In replying to this letter, I shall take it kind that you introduce no new topics, so that the correspondence may here terminate in the mean time. I am, &c.

GEORGE COMBE.

SIR WILLIAM HAMILTON TO MR COMBE.

MY DEAR SIR,—In reply to your letter of yesterday, I have only to say, in general, that if you feel sore at any parts of my last communication, you must recollect that these were merely the rejoinders, at length tardily provoked, by the irrelevant personalities with which you have of late attempted to screen the weakness of your cause, if not to disgust your opponent with his controversy. Your own manifold misrepresentations in the Caledonian Mercury, and the contemptible distortion of all truth and reason in the anonymous articles of the phrenological champion, the Scotsman, were allowed to pass, in general, without refutation, because I had myself no patience for the task, and was unwilling either to engross the columns of a newspaper, or to perplex the public with contradictions of what, even if true, had no influence on the scientific question. The continuance of the same teasing conduct in your last letter, made it expedient, however, to discontinue, for a moment, my forbearance; and, as I expressly stated, my answer to that letter was intended "*to signalize, once for all,*" your undignified and uncandid mode of disputation, affording, at the same time, a sample of the *utter disregard, which, in common with other Phrenologists, you habitually manifest to the correctness of your most positive and most important assertions.* In doing this, I had no intention of exciting any irritation on your part; but in check-

ing a system of personal allusions, as inaccurate as irrelevant, and wholly unworthy of a philosopher and the cause of truth, I was certainly not bound to see that the missiles, I only retorted from myself, fell without inconvenience on the hand from which they had been originally sent. It is curious also that you object to my letter, only in its more unimportant and least galling passages; and are fain to pass over, in dumb endurance, its annihilating expositions of the phrenological tactic you employ, of *reversing, in your reports, the reality of the most notorious facts*. But though I might have conceded all you ask, had your letter been confined exclusively to ourselves, the case is completely altered by its publication, on your part, to the Phrenological Society.

As to the matter of the placards, it would certainly have been long before I stooped to reproach you with that device for congregating a crowd. But as you have published, through the Phrenological Society, that I condescended to adopt that mean, I must be allowed, on my part, to publish a contradiction of so intolerable an allegation. My statement, that this mode of assembling a multitude was "purely phrenological," is also, I am confident, perfectly correct. I know nothing of the Committee for the relief of the distressed operatives, but knowing, as I do, the manœuvring of your sect, (and you will correct me if am wrong,) I surmise and venture to state, that the whole business was a *phrenological job*, originated and carried through by phrenological members of that committee, whose compassion for the starving operatives under their protection, did not induce them either to encourage others to pay, or to pay themselves, their half-crown to any lecture but that in favour of their own opinion. If the proceeding had not been phrenological, if the only end in view had been the advantage of the charity, and if the measure itself had not been indecorous, why was it not *proposed to me* by the committee, that my lecture also should have been placarded? It was likewise a piece of amusing subtlety to make the committee pay the expense of placards, advertisements, &c. A larger sum could thus be proclaimed and published as the proceeds of your lecture paid over to the charity. Your friends truly neglect nothing to captivate opinion, or to magnify themselves.

In regard to my *third* note, as no effect could have been produced in *Edinburgh* by the publication of the context, I am willing to cancel it, provided you qualify your expression so as to prevent a stranger inferring from it, as he naturally would, that the lecture in question was for any paltry profit of mine.

The allusion in my *first* note to your pamphlet, was pertinently introduced, in illustration, once for all, of an absurdity with which I have been often pestered by you; that, having read a paper against Phrenology, I had incurred an obligation to the Phrenologists, *of publishing my attack, and of publishing it*

without delay. Had I conceived it possible, that the contents of this note were such as to excite *any prejudice against your religious opinions*, or to operate, *in any way, to your personal disadvantage*, it *never could* have been written by me. And if you yourself will state, and any impartial person confirm, that the smallest danger of such being its effect, is to be apprehended, I must, perforce, withdraw it. Such a statement would, however, be tantamount to saying, that no philosophy can be argued irreligious in its consequences, without reproaching the philosopher himself with irreligion. I hold, and am not bound to dissemble my opinion, that *Phrenology is implicit atheism*; but the Phrenologists would be greater conjurors than I believe them, if they were able to trace the connexion, however necessary, between their philosophy and its results. *Phrenology—Physical Necessity—Materialism—Atheism*—are, to those competent to the question, the precipitous steps of a logical transition: but though you may have advanced a degree farther than those weaker brethren, who still actually hold that Phrenology is not inconsistent with the moral personality of man, I am far from supposing that you have even a suspicion of the melancholy conclusion to which your doctrine inevitably leads. And if the nature of my allusion could not possibly affect you personally, it is idle to say, that I had no right to refer at all to a work, the opinions of which, in so far as they were stated by me, you *have publicly read in the Phrenological Society*, which you have printed, widely circulated, and distributed even to women; which, right or wrong, is not confined to the sphere of its distribution; which is openly discussed in company, and has even been attacked in print; nay, which you yourself declare *to be on the eve of a general publication*. I was in fact entitled not only to state the general doctrine, but to have minutely canvassed the arguments of a work thus virtually published. Did not the Christian Advocate of Cambridge publish an elaborate refutation of the *Œdipus Judaicus*, which was only privately circulated by its author? I have never read your work; and if you mean to assert, that the doctrine it maintains is “*diametrically opposite*” to the *material necessity* or *fatalism* of human action, I am happy to afford you the opportunity of contradicting a current misconception; and at once acknowledge the report, on which I depended, to be incorrect. But on the supposition that you maintain that doctrine, I expressly stated, that (with many pious individuals) you were wholly ignorant, that the negation of the moral world virtually denied the existence of a God; and no more suspect you of irreligion for this opinion, than I would accuse a divine of conscious atheism, who could identify the philosophical doctrine of *absolute necessity* with the Calvinistic doctrine of the *absolute decrees*.

But, though not with reference to yourself, I can well imagine you anxious, on other grounds, to have the note expunged.

The phrenological clergy have some character to support as theologians. They are at last, perhaps, beginning to suspect that they have placed themselves in a mighty ludicrous position, and every exertion must be made to prevent them coming to a clear consciousness of their situation. You are well aware, that when they leave the camp, (and decamp they must,) they will, in a body, carry back with them, as they brought over, all the women converts, and half the men. Where then will be your multitudes? The bubble will collapse the moment the pious breath by which it has been inflated is withdrawn.

But while I should hold myself disgraced, if I could have whispered aught against you, to the prejudice of your religious estimation, this reproach you actually incur, by the most odious and unfounded of insinuations against me. You say, in reference to my allusion to opinions, which you have printed, circulated, and publicly read, to an allusion in which you are personally guarded from all prejudice, that "it would be just as fair and correct, on my part, to inquire concerning the private and confidential remarks which you have made at any time, on the doctrines of Spinoza, and to charge you with atheism." It is well that a phrenological controversy teaches the *nil admirari*; and I cannot treat this inuendo even with so strong a feeling as contempt. I leave it to others to distinguish the *total difference* of the two cases in every point, supposing the grounds of your insinuation to be true. These are false; and as I know not by whom, or how you may have been deceived, I can only declare in general, that *I never at any time made any confidential remarks on the doctrine of Spinoza; that I never believed, and never expressed a belief in his opinions; in short, that I never uttered a philosophical tenet in private, which I would hesitate for a moment to proclaim in public.* Pantheism, though sometimes, of late, incautiously preached as Calvinism, I hold to be subversive of all religion, natural and revealed. With his ablest opponents I regard Spinoza, his first principles being conceded, as the most cogent of philosophic reasoners. It is only in its foundation that his doctrine can be assailed, and this foundation cannot be denied by a Phrenologist. The paltry attempt at intimidation, contained in this unfounded aspersion, principally determines me not to retract my reference to your pamphlet, unless compelled to do so, by the personal plea, which, however groundless, I would not choose to resist.

As this correspondence is professedly for publication, *I again protest against credence being given to any private assertion or insinuation of the Phrenologists regarding me, of any kind.* Almost every statement they have hazarded, in print, has been disproved, or allowed to stand unrefuted, only from indifference; while, on their side, they have been unable to invalidate one iota of any assertion hitherto advanced by me. This caution against their private misrepresentations, is not, however, founded only

on an inference, *a fortiori*, from their public. In this, likewise, I disclaim any allusion to you. I remain, my dear Sir, very truly yours,
W. HAMILTON.

16, Great King Street, 11th March, 1828.

MR GEORGE COMBE TO SIR WILLIAM HAMILTON, BART.

Edinburgh, 12th March, 1828.

MY DEAR SIR,—To a lover of peace like myself, it is gratifying to have it declared, that you would do as a favour what could not be exacted as a right,—personally to oblige me,—because, were it not for your strong and repeated asseverations to this effect, I should certainly have inferred, from the whole tone and complexion of your recent communications, that your great aim was, not to discuss a philosophical question, with philosophical temper, but, through misrepresentation, violated confidence, and an appeal to prejudice, to excite personal ill-will against one whom you had failed to touch by the weapons of reason. This conclusion would have been forced upon me, even by your first attack upon a paper or essay of mine, nowise connected with our phrenological controversy; and still more by your persisting in this course, after being fully apprized of its having been a private communication, made to persons in whom I had confidence, under an express engagement, *upon honour*, that it should not be publicly criticised in any way, and that my object was to obtain their friendly advice and opinion, before any position should be taken by me absolutely, even in my private thoughts, or in any shape before the public. To me, certainly, it did appear, that, after being put in possession of those facts, your lips were as much sealed as those of the parties on whom my confidence was originally bestowed, and who, by retaining my communication, agreed to the conditions on which it was made. You justify your attack by reference to the answer to the *Œdipus Judaicus*; but you do not show that the *Œdipus*, like my essay, contained no allusions to any existing system, and that it was privately circulated among the author's friends with the sole view of obtaining their confidential criticisms on its merits prior to publication; and, although you had so shown, I would still reply, that the commission of one wrong by a Cambridge scholar does not justify another wrong, even by a senior wrangler of that university.

The error you have committed is greatly aggravated by the avowal, that *you have never seen the essay* which you have ventured to characterize so offensively; and, although my practice hitherto has been to confine myself to a plain statement of facts, supported by documents, in answer to aspersions, I shall ven-

ture to assert here, that you are the first person who, in profound ignorance, in so far as personal knowledge is concerned, adventured, on the faith of vague report, to charge upon another atheism, and every thing else that could be supposed capable of appalling the sentiments and scaring the imaginations of the good and pious; and all this, as you say, for the charitable purpose of affording me an opportunity of contradicting the rumour! I have told you also, that I am about to publish the essay of itself; and most men would have considered publication as a far better means of putting down gossip-misrepresentation than by simple denial, or by overthrowing a metaphysical superstructure, which owes its existence entirely to your own imagination.

You certainly display no less confidence in your metaphysical acumen than you did previously in your antiphrenological polemics. In the latter, anticipating a triumph, you commenced by vaunting on your own side, and contemning the other by expressions highly derogatory and insulting to the intellect and character of Drs Gall and Spurzheim; but neither in public, nor under our private reference, have you hitherto adduced an iota of evidence in support of your boasted objections. The very fact of the umpires having agreed, as is established by their report, to go in quest of evidence themselves on the subject of your allegations, proves, that you neither adduced, nor offered to adduce, any which they deemed satisfactory. You now talk with equal disrespect of the mental capacity, in regard to metaphysics, not merely of your humble correspondent, but of such of the Calvinistic clergy of Scotland as have embraced Phrenology, and of the sex whom you derogatively call "women," but who, in my opinion, have generally fully as much of intellect, and a great deal more consistency in ratiocination than their contemptuous critic. My allusion to Spinoza was not introduced with the view of intimidation. Its sole purpose was, by establishing a parallel case, argumentatively to put you out of conceit with your mode of attacking me. Even this, however, has failed to produce the desired effect. I leave it to the public to decide on the motives both of your conduct, in this respect, and mine, and only add, that I distinctly disavow every imputation on your religious opinions, whether stated privately or in public.

It does appear to me, that one not of the least of the errors into which you have fallen is fancying that the Phrenologists are writhing under the lash of your pen. For myself, I can say most truly, that I have suffered nothing, and experienced no uneasiness whatsoever, except from the time wasted in replying to a correspondence filled, as it has always seemed to me, with perplexed ideas and entangled expressions, and in which my opponent has been constantly shifting his ground. An intoxicated person thinks every one else tipsy, and that the whole external world is turning round. I account for your rhodomont-

tade, and for all your abuse, by supposing that, being angry yourself, you take it for granted that all the Phrenologists are impassioned. Being averse from quarrelling, I took no notice of your expressions as they occurred; but, before closing the correspondence, I must distinctly state, that I consider you to have indulged in assumptions and insinuations against the Phrenologists and me, of the most unhandsome, ungenerous, and unwarranted description. In my own letters, I have watchfully endeavoured to avoid being drawn into the imitation of such conduct. If, notwithstanding all my efforts to the contrary, I have in any instance misrepresented a fact or statement, or indulged in any personality whatever, which, up to this moment, I am unconscious of having done, I shall be most truly sorry for it;—nothing was farther from my intention, and nothing could so effectually injure my cause.

I must also protest against your either making me responsible for what has been done by others, or of turning your correspondence with me into a vehicle of attack upon third parties. I have told you before, and now repeat, that with the articles in the Scotsman I had no concern directly or indirectly. That journal is quite able to answer for itself; but I may remark, that what has appeared in it can hardly be called anonymous, the author being known to every one, I should think, but yourself. He has, I know, avowed the authorship to some of your own friends; and I have heard him say, that, out of kindness to you, he gave his review of the controversy a title which he is not accustomed to use, and abstained from pointing out a variety of inconsistencies into which you had fallen. His review was also, in my opinion, remarkable for its impartiality and dispassionateness; but, had it been otherwise, the answer should have been sufficient, that I have not written a syllable against you to which I have not affixed my name. As to personalities, those who ought to be impartial judges have assured me they consider you as the party who alone has unwarrantably indulged in them, and that the language you have employed, when speaking of Phrenology, its founders, and advocates, has been exceedingly discourteous and unhandsome. But of all this the public will judge.

Your remarks respecting the placarding and advertising of the lectures are unworthy of yourself. The committee of inhabitants for relief of the distressed operatives did what they saw proper, and announced the proceeds at what they saw just, without the slightest interference on my part. I had no responsibility, and feel no anxiety on the subject.

In one thing only I must in conclusion acknowledge you have succeeded; that is, in drawing me into a correspondence on various subjects utterly unconnected with *your chosen task of disproving Phrenology* in a scientific manner, by adducing physiological evidence against it. But, for the future, if we

correspond at all, our communications must be confined strictly to your proofs; for I am fully determined against travelling with you, in this form and manner, over the boundless field of ethics and metaphysics. On such subjects, there is no other way of understanding each other, or making ourselves understood by the public, than by delivering ourselves in the shape of a volume, or rather of volumes.

SIR WILLIAM HAMILTON, BART., TO MR GEORGE COMBE.

MY DEAR SIR,—As you still obstinately persevere in your untenable assertion, that I had no right to refer to your *book*, let us throw the book out of the question; and I beg you to answer me this interrogation, *Why are you better entitled to allude to opinions advanced by me, in a paper read before the Royal Society, than I am* (AND IN REPLY ONLY TO YOUR OWN ALLUSION) *to refer to opinions maintained by you in a paper read before the Phrenological Society, and which was even reported and published in the phrenological newspaper, the Scotsman?* Independently of all right, I have, however, already expressed my willingness to withdraw the obnoxious note, if it can be shown, that its purport could be, to you, of any personal disadvantage: and I further offer to do so, if you state, either that the opinions in your printed work, are not the same with those in your paper,—or that you have subsequently changed your views,—or that you have no intention of again publishing them to the world.

In regard to “the mental capacity of such of the Calvinistic clergy, as have embraced Phrenology,” on that point, at least, you and I are pretty nearly at one. Those of them who *do not* hold the physical necessity of human action, are by you and me, and all who know aught about the matter, despised as purblind Phrenologists: those of them who *do*, are by every one, not the veriest tyro in theology, viewed as the most ignorant, or the most heretical of divines. They can only escape the phrenological, to be impaled on the theological horn of the dilemma. I, indeed, condemn no Calvinist for phrenological opinions; *as, in fact, no true Phrenologist can be a Calvinist.* “*The contingency of second causes,*” and “*the liberty of man undetermined by any absolute necessity of nature,*” is a dogma, as much part and parcel of the Calvinistic scheme, and is as strongly enforced by the Confession of the Scottish church,* as any of the Five Points: and a clergyman who could maintain an opposite opinion, would

* See Confession, c. iii. § 1, c. iv. § 2, c. v. § 2 and 3; and, above all, c. ix. § 1 and 2.

promulgate a heresy, not only condemned by the standards of Calvinistic orthodoxy, but in contradiction to all the doctrines hitherto received as fundamental, by *every Christian sect*.

It is also well in a Phrenologist to insinuate against me any disrespect of the Calvinistic clergy, and this, when in the very act of guarding their system against unmerited reproach! Calvinism, in its day, has been the object of no merciful abuse. But the reviling of its enemies has been light, when compared with the opprobrium cast on it by the philosophy, fondly embraced by some of its disciples, even as a new pillar of their faith. The treatment indeed of their Clerico-Calvinistic converts, by the Phrenologists, has been at once cruel, perfidious, and ungrateful. After seducing them from their walk of usefulness—after exposing them to ridicule, for the credulous profession of an idle hypothesis—and after abusing their ghostly influence to decoy the multitude into the net; it was certainly too bad to hold up their victims to public and to bitter derision, by proclaiming *that a faith in the peculiar doctrines of Calvinism, was only to be explained by the inordinate development of the brute propensities of Self-conceit and Murder.**

That was the most unkindly cut of all!

I must also protest to the ladies, against your groundless imputation of disrespect to the sex, in having spoken of them in their generic capacity, as *women*. I regard them, on the contrary, as gracing any opinion they may choose to patronise; and of the phrenological, I am free to acknowledge, that they constitute not merely its only ornament, but its *principal strength*. I am, indeed, truly afflicted, in being compelled to contradict a theory which they have taken under their especial protection; but philosophy has no politeness. And if I should have offended their sense of logical independence, by insinuating that they have been brought blindly over to the new doctrine, by the influence of clerical example on their constitutional piety, I merely stated what the male Phrenologists themselves, not only publicly proclaim, but on which they even profess to found a debt of gratitude to the clergy of the Scottish church!†

I leave the assertions relative to your own misrepresentations, &c., to be estimated, without any further comments. In regard to the anonymous articles in the Scotsman, I am, to this moment, utterly ignorant of their author. I certainly never

* “ Dr Price, universally known by his mathematical, moral, and political writings, was the son of a dissenting minister at Brigend, in Wales. His father was a rigid Calvinist; but young Richard occasionally started his doubts and difficulties, (HIS SELF-ESTEEM AND DESTRUCTIVENESS BEING SMALL,) and often incurred his father's displeasure, by the arguments which he advanced against the tenets of his sect.”—SPURGEON'S *Physiognomy*, 1826, p. 106.

† See report of the speeches at a phrenological dinner, somewhere in the Phrenological Journal.

took the trouble of inquiring ; and if I had wasted a thought upon the matter, I should have deemed it unjust to have attributed on suspicion, to any respectable individual, such discreditable productions. But though, in themselves, beneath consideration, if your approbation extends so far, as to print them in the *Phrenological Journal*, I may be disposed to deal with them as representing the school ; and shall be happy, in that case, if you will permit me to illustrate their merits by a commentary.

I am glad to hear that you mean hereafter "to confine your-
"self strictly to the proofs." *This is precisely the lesson I have been desirous of teaching :* and in following you, for a moment, in your irrelevant excursions, I only intended, by retorting your own warfare on yourself, to put you out of conceit with a favourite mode of disputation, and to compel you, even for your own sake, to limit the controversy to the facts.

I allow many statements of yours to pass without observation ; because, though easily refuted, their importance would not compensate the trouble. I remain, my dear Sir, very truly yours,

W. HAMILTON.

16, Great King Street, 14th March, 1828.

IV. REPORT OF DR SPURZHEIM'S LECTURE ON THE FRONTAL SINUS,

(From the *Scotsman Newspaper* of February 2, 1828, referred to by Sir William Hamilton on pages 32 and 33.)

As mentioned in our last, Dr Spurzheim did treat of the *Frontal Sinus* on Wednesday. He requested that it might be observed, in the first instance, that, although all which had been asserted respecting it were true, there was still a large field of usefulness left for Phrenology. The *sinus*—or, in other words, the hole or cavity betwixt the inner and outer plates of the skull, affected only our means of judging of the amount of the brain in the forehead—and generally a very small portion of the lower part of the forehead. But even although the sinus were found in every instance, (which is not the case,) the means of judging as to the great mass of the brain—of the whole regions assigned to the propensities and sentiments—were left unaffected. And how much of character—how much of conduct, depended on the propensities and moral feelings of each individual ! But let it be observed, in the second place, that there is no sinus or cavity in the crania of children at their birth, nor until they reach a considerable age,—none at six months, two, five, or even seven

years. The cranium is very thin in infancy, and no one can deny that the external conformation of the skull is then—in all healthy and ordinary cases—indicative exactly of the size and form of the internal brain. Here, then, although we should not go beyond ten years of age, is a clear and unimpeachable field on which we may judge of the comparative volume and distribution of those portions of brain in the forehead assigned to the perceptive or knowing faculties,—of what nature has originally done and intended for each individual in regard to intellectual powers: and is not this of very great importance? Is there not a great deal of the characters and talents of individuals—even without Phrenology—known and indicated by the age of seven? But Phrenologists do not stop here. They say that of two skulls one may have a cavity, and the other not, and yet the skull without an open space betwixt the plates may be thicker than the one which has a cavity. Dr Spurzheim produced instances of this. The existence or non-existence of a sinus, therefore, was no absolute criterion of the thickness of bone or skull; and Phrenologists contend,—what, they say, anatomists and physiologists who attend to the facts must admit,—that in the average of healthy individuals, in middle life, there is an average thickness of bone or skull, embracing both the outer and inner plates, and the space between, when there is a space unoccupied; that, in the average of healthy adults, the sinus is small, affecting only a small portion of the forehead above, and laterally from the root of the nose, seldom occupying, and still more seldom extending beyond the external spaces assigned to Size, Weight, or perhaps a small part of Locality, or Lower Individuality; and never, in the absence of insanity or old age, extending to Causality. In old age, and in disease, unquestionably, various anomalies are presented. Every old person has not a sinus; but frequently the sinus increases as the faculties decay; and decay, it is well known, commences in different individuals at very different periods of life, and reaches very different degrees. There is a precocity in decay as well as in talent; and many diseases affect the condition of the brain; but, taking the mass of ordinary cases of healthy adults, the external size and conformation of the forehead may be relied on, as indications of the amount of brain to be found within. This was as much as was to be obtained in any science connected with morals. Dr Spurzheim did not maintain that there were no anomalies in nature, no difficulties to be overcome. On the contrary, he strongly enforced on his audience, that many difficulties presented themselves to those who would judge of the intellectual powers from the external form. There was frequently a bony ridge at the extremity of the eyebrows, which gave a sharpness to them,—which was sometimes solid bone, sometimes hollow, and forming what might be called a crest,—which sometimes accompanied a sinus, and sometimes not,—but

which did not indicate the presence of brain. This ridge, when it existed, and the presence of which could not be mistaken, must always be *abstracted*, or held as *entirely removed*, in judging of the volume of brain. It was also not enough to attend merely to the *breadth* and *height* of the forehead; it was still more essential to ascertain its *depth*, or the extent in which—examining it *en profile*—it projects forward from the portions of brain assigned to Benevolence in the upper region, and Constructiveness in the lower—as to which the total mass of brain forward from the centre of the ear—but still more the amount of brain forward from the *temple*—affords an important and readily-observable *indication*. We may thus—by careful observation,—but only by very careful observation,—be able to say of an individual whether his intellect be *shallow* or *deep*. But the lecturer impressed strongly the necessity of Antiphrenologists *taking the trouble* of ascertaining *what Phrenology* is,—what it professes to deal with—and what it still leaves unexplained,—before they slight it or attack it. If another course be taken, it merely proves the rashness, conceit, prejudice, and ignorance of the opponents. He then went on to explain the seat of Individuality, or that faculty or tendency which made persons curious, active, and desirous to ascertain all the *individual existences* by which they were surrounded,—a propensity generally strong in children, but stronger in one than another, not only in infancy, but through life. There were individuals constitutionally observant or unobservant. The French had more of this character than the English,—speaking of them nationally,—and the Scotch were certainly more inclined to reason than to know individual objects:—but still, let the reasoning powers be ever so powerful, it was necessary that they should lay in a stock of materials on which to operate;—they should ascertain objects and facts—even of Phrenology—previously to their disposing of the science on metaphysical grounds.

It will be understood, of course, that we have not followed Dr Spurzheim through a lecture which occupied the greater part of two hours:—we have merely endeavoured—in this instance, from the controversy which is going on about the *Sinus*—to give the *essence* of his prelection.

ARTICLE II.

ADDRESS DELIVERED TO THE LONDON PHRENOLOGICAL SOCIETY, AT THE COMMENCEMENT OF THE FOURTH SESSION, 5th NOVEMBER, 1827, BY JOHN ELLIOTSON, M.D., CANTAB., PHYSICIAN TO ST THOMAS' HOSPITAL.

WE are now assembled to commence the fourth session of our Society, and evidently under more favourable auspices than any former one. At the institution of the Society in 1823, our numbers did not amount to a dozen, and now we are nearly an hundred and fifty, of whom seventy-nine are ordinary members; and in the last session no fewer than thirty members were admitted. We hail this not as a proof that *our* Society is becoming popular, but that the science of Phrenology is beginning to be valued. In other societies an increase of members depends upon their good management, because the value of their object is undisputed, and those societies must therefore flourish most which best prosecute it; but the truth and utility of our object are called in question, and consequently, at the admission of every new member, we may conclude that one more person is convinced of the truth of Phrenology. But we have many other proofs of the spread of the science. Phrenological Societies, or Clubs, have lately been formed in many parts of England. The lecture-rooms of Dr Spurzheim and Mr Combe have been crowded; good authors express their assent to Gall's doctrines, and, what is a very striking circumstance, in books containing no allusion to Phrenology, phrenological language is adopted. I may mention, that a large lunatic hospital is erecting at Brussels, and that Dr Gall told me a month ago in Paris, that he had been consulted upon its arrangements, and trusted it would be one of the best in Europe. The cry of deism, materialism, and fatalism, is now faint. The academy of the Catholic religion at Rome condemned Phre-

nology as "contrary to the morality and precepts of the Christian religion, based on the most absurd fatalism, and on the erroneous doctrine of predestination." Gall was obliged to leave his practice in Vienna on account of the charge of materialism against his doctrines. But at present few raise these objections,—none but those who are deplorably uninformed. A gentleman was sitting next me at a dinner-party, where it was well known that I was a Phrenologist and he an Anti-phrenologist, and one who delighted in mischief begged to know if he believed in Phrenology. The opportunity of vengeance against me and Phrenology was too favourable to be lost, and he exclaimed, "I am not a Phrenologist, because I am not a materialist; I am not a Phrenologist, because I believe in God; I am not a Phrenologist, because I believe there is a difference between right and wrong; I am not a Phrenologist, because I believe in an hereafter!" I congratulated myself that we were not at Rome, and he the Pope. But the effect of his violence was merely a laugh throughout the party. In fact, upon the question of materialism, people now see that they can neither think nor feel without heads; that Shakespeare spoke the truth when he said, that when the brains are out a man must die; and that, this being undeniable, no more support is given to materialism, by believing with Gall that different parts of the brain have different offices, than by the common doctrine, that the whole of the brain does every thing. They see that the fact of the brain being the organ of mind is not at all inconsistent with the belief, that an immaterial and immortal something is diffused throughout the brain and sets it in action. Some conceive it of no importance to the Christian whether he believes in an immaterial principle of mind or not, agreeing with Locke, who says, in his *second reply to the Bishop of Worcester*, "All the difficulties that are raised against the thinking of matter, from our ignorance or narrow conceptions, stand not at all in the way of the power of God, if he pleases to

“ordain it so.” Seeing that brutes, in the words of Gall, (*Sur les Fonctions du Cerveau*, t. i. p. 56), “are engendered, brought forth, and nourished, according to the same laws as man; that their muscles, vessels, entrails, nerves, are nearly the same, and perform the same functions; that they are endowed with the same senses, which they use in the same manner; are subject to the same affections, joy, sorrow, fear, and terror, hope, envy, jealousy, anger; have most of our inclinations; are excited like us to propagation; love and take care of their offspring; are attached to each other, and to man; are courageous, and defend themselves and their offspring boldly against their enemies; feed like us upon vegetables and other animals; have a sense of property, and while some are cruel and sanguinary, others take pleasure in theft; are sensible to blame and approbation; are mild, docile, compassionate, and mutually assist each other; while others are spiteful, indocile, unmanageable, obstinate; remember benefits and ill treatment, and are grateful or revengeful; are cunning and circumspect; foresee the future by the past, and take necessary precautions against dangers which threaten them; correct, by experience, their judgment and their unsuccessful attempts; have an idea of time, and foresee its periodical return; have memory; reflect, compare; hesitate, and are determined by the strongest motives; are susceptible of a certain decree of individual perfectibility; even make abstractions; communicate to each other their ideas, wants, and intentions, by means of an articulate language or gestures; acquire more sagacity and knowledge as circumstances oblige them to be more sharp-sighted and prudent; balance the bad consequences of certain actions, which they remember, with their present desires; follow a deliberate plan of conduct agreed upon by many individuals; know each other; sing, or are alive to music; have an astonishing vocal memory, and travel; that a great number build; some even reckon; that very frequently their actions denote a moral feeling, a consciousness of justice and in-

justice, &c. ; so that we are almost ready to exclaim with a father of the church, Lactantius, that, except the feeling of religion, and the knowledge of the existence of God, there is no moral quality or intellectual faculty, the first germs of which are not discoverable in the brute creation :"—Seeing all this, many persons agree farther with Locke, who adds, that "the faculties of brutes prove either that God can and doth give to some parcels of matter a power of perception and thinking, or that all animals have immaterial, and consequently immortal souls as well as man ; and to say that fleas and mites, &c., have immortal souls as well as men, will possibly be looked upon as going a great way to serve an hypothesis." They conceive that the disbelief of an immaterial soul stands not at all in the way of the belief of a future state, because the Almighty can call us again into existence if it seem good to him ; because the scripture doctrine is, that man shall, by the command of God, rise again bodily ; and the church of England maintains, in her 4th article, that "Christ ascended into heaven, and there sits with his body, with flesh, bones, and all things appertaining to the perfection of man's nature ;" while the ancient heathens believed in a future state of the soul only, and this from its immateriality and inherent immortality ; to quote a line from Ovid, *Errant casangues sine corpore et ossibus umbræ*. They contend that the nature of man is a purely physical subject, and therefore to be learnt by observation and reason ; while the resurrection being, in the words of Locke, "beyond the discovery of our natural faculties, and above reason," is a subject for revelation, from which we are simply to learn that there will be a future state, without troubling ourselves farther ; exactly as the best divines of the church of England allow us to learn only from Genesis, that God made the world, and have our own opinions upon geology. "The expressions of Moses," says Mr Sumner, a prebendary of Durham, in his *Records of the Creation*, "are

"evidently accommodated to the first and familiar notions of the sensible appearances of the earth and heavens, and the absurdity of supposing that the literal translation of the terms in Scripture ought to interfere with the advancement of philosophical inquiry, would have been as generally forgotten as renounced, if the oppressors of Galileo had not found a place in history." "When I went to the University," says Bishop Watson, "I was of opinion, as most schoolboys are, that the soul was a substance distinct from the body, and that, when a man died, he, in classical language, breathed out his soul, *animam expiravit*; that it then went I know not whither, as it had come into the body from I knew not where nor whence." "This notion of a soul was, without doubt, the offspring of prejudice and ignorance." "Believing, as I do, in the truth of the Christian religion, which teaches that men are accountable for their actions, I trouble not myself with dark disquisitions concerning liberty and necessity, matter and spirit; hoping, as I do, for eternal life through Jesus Christ, I am not disturbed at my inability clearly to convince myself that the soul is or is not a substance distinct from the body."—*Memoirs of the Life of Bishop Watson*. Persons of this description also remind us, that those who make the greatest stir about immateriality are after all materialists; that Mr Abernethy, for example, believes truth and justice, religion and piety, all destroyed by the disbelief, of what?—not of an immaterial substance, but of a mobile and subtle fluid, which he maintains is diffused through our nervous system:—as though a fluid, however subtle and mobile, were not still matter—as though this were not the very doctrine of the materialist Lucretius,

———— quoniam est animi natura reperta,
 Mobilis egregie, perquam constare necesse est,
 Corporibus parvis et levibus, atque rotundis.

Dr Bostock, himself an immaterialist, remarks, that Sir Everard Home, by professing that a certain gelatinous substance, fancied to have been seen by Mr Baner and himself in the brain, is the very essence of life, the *materia vite diffusa*, has broached, through a disciple of the immaterial Hunterian school, the most direct system of materialism that has been given to the world: and, with excellent feeling, Dr Bostock subjoins, "that the example and authority of Sir Everard

"Home should certainly operate as a strong motive with those who embrace this view of the subject for exercising perfect candour towards their opponents."—*Elements of Physiology*, vol. I., p. 235. In regard to fatalism, those who believe in free-will, allowing, of course, that we must have motives occasioned in some manner or other, see that freedom is no wise interfered with by the doctrine, that motives depend upon the strength of particular parts of the brain as well as upon external circumstances. It seems, therefore, generally conceded, that the doctrine of particular parts of the brain having particular mental functions leaves the question of deism, materialism, and fatalism, precisely where it found them, squaring as perfectly with either side of the question as the acknowledged fact of the brain being the organ of the mind. Some go still farther, and maintain, that the only question is, whether Phrenology is true? If true, that it cannot be supposed contrary to morality or religion without an impious supposition of contradiction in the works and the words of the Almighty. But the greater part of persons cease to oppose Phrenology on these grounds, not because they now discover its true bearing, but because they see it embraced by men of the highest talents and the best principles, by men of all religious creeds, and by ministers of the church equally with sceptics. The greater part of mankind derive all their opinions and habits entirely from those around them, though they fancy themselves guided solely by reflection. The artless answer of a woman whom I asked last week, why she had been to a very absurd practitioner, is the true explanation of almost every person's opinions and habits,—“I suppose I went because others do.”

“I must,” says Locke, in his *Essay on the Human Understanding*, (ch. x.), “do mankind that right as to say, there are not so many men in errors and wrong opinions as is commonly supposed. Not that I think they embrace the truth; but indeed, because, concerning those doctrines they make such a stir about, they have no thought, no

"opinion at all." The very persons who spurn a discovery, because made after they had formed other opinions, would, if born in the next century, when the discovery was admitted, implicitly believe it, and wonder that their predecessors could have been so ignorant. We now therefore have to fear the imputation only of being fools; and with this we may surely bear, as we are a numerous band. Gall had to stand contempt and ridicule alone. If Harvey was ridiculed and reviled and lost his practice, Gall was compelled to leave his practice in Vienna, and an attempt was made to remove him from Paris; and, amidst the revilings and ridicule he sustained, not only from the learned, but even the female potters of Paris, we find a masquerade was actually prepared in that city to turn him into ridicule, and that plaster-models are still in existence representing the comic personages who were to have appeared in it, on the middle of which is inscribed, "*Marche comique du Docteur Gall.*" But Gall has never relinquished an iota of his doctrines: he has not denied the facts which he had stated, and which he still knows to be true. He imperturbably intended to amuse himself by witnessing the masquerade; but the authorities prevented what they conceived would be a disgrace to the nation. Upon this topic I cannot refrain from quoting his profound and eloquent work. "Nature," he observes, "treats all new truths "and their discoverers in a singular, but always uniform manner. "With what indignation and animosity have the greatest benefits been rejected; for instance, potatoes, Peruvian bark, vaccination, &c. No sooner had Varolius made his anatomical discoveries, than he was decried by Sylvius as the most infamous, ignorant, and frantic among men. *Vesanum, litterarum imperitissimum, arrogantissimum, calumniatorem maledicentissimum, rerum omnium ignarissimum, transfugum, impium, ingratum, monstrum ignorantie, impietatis exemplar perniciosissimum quod pestilentiali habitu Europam venenat,* &c. Varolius was accused of dazzling his auditors with a captivating eloquence, and of effecting the prolongation of the optic nerves to the optic thalami by art. Harvey, for maintaining the doctrine of the circulation of the blood, was treated as a visionary; and baseness proceeded so far as to attempt to ruin

" him in the opinion of King James the First and Charles the
 " First. When it was found impossible to shorten the optic
 " nerve, or stop the course of the blood in its vessels, the ho-
 " nour of these discoveries was on a sudden given to Hippo-
 " crates. The physical truths announced by Linnæus, Buffon,
 " the pious philosopher Bonnet, and by George Le Roy, were
 " represented as impieties which would lay the foundation of
 " the ruin of religion and morality; even the virtuous and ge-
 " neral Lavater was treated as a fatalist and materialist. Uni-
 " versally do fatalism and materialism, placed before the sanc-
 " tuary of truth, make the world retire. Universally do those
 " whose opinion leads the world, not only ascribe the absurdities
 " of their own prejudices to the author of a discovery, but
 " even renounce established truths as soon as these are an ob-
 " stacle to their purposes, and they revive ancient errors, if cal-
 " culated to further the ruin of the man who is in their way.
 " This is a faithful picture of what has happened to me. I have
 " some right, therefore, to be proud and to glory in having ex-
 " perience the same fate as the men to whom the world is in-
 " debted for such a mass of knowledge. Nature appears to
 " have subjected all truths to persecution, that they may be the
 " more firmly established; for he who can snatch one from her,
 " always presents a front of brass to the darts levelled against
 " him, and has always strength to defend and establish it. His-
 " tory teaches us, that all the efforts and all the sophisms
 " directed against a truth once discovered, fall like dust blown
 " by the winds against a rock. We may quote, above all
 " other examples, that of Aristotle and Descartes, when we
 " wish to show the influence of prejudice upon the good or bad
 " fortunes of new doctrines. The antagonists of Aristotle burnt
 " his works. The works of Ramus, who wrote against Aris-
 " totle, were afterwards burnt; and the adversaries of the phi-
 " losopher of Stagira were declared heretics, and to attempt a
 " refutation of his doctrines was forbidden under pain of being
 " sent to the galleys. However, the philosophy of Aristotle is
 " now no longer discussed. Descartes was persecuted because
 " he taught the innateness of ideas, and the university of Paris
 " burnt his books. He had written the most sublime thoughts
 " upon the existence of God. Voët, his enemy, accused him of
 " atheism. Afterwards, this same university declared itself in
 " favour of the innateness of ideas; and, when Locke and Condil-
 " lac attacked innate ideas, a cry of materialism and fatalism was
 " raised on all sides."* Thus it was that Gall consoled himself.
 Let us reflect also upon his pupil, Dr Spurzheim, who was

* Sur les Fonctions du Cerveau, t. i., p. 22.

denounced in some celebrated reviews as an ignorant and designing quack,—one whose work was “an incoherent rhapsody, which nothing could have induced any man to have presented to the public, under the pretence of instructing them, but absolute insanity, gross ignorance, or matchless assurance.” Yet Dr Spurzheim deserted not the doctrines of his master. Well, therefore, may we bear with a little ridicule, and with the compassion which is felt for us. We are quite numerous enough to keep each other in countenance. Instructed by Gall, we, like him, discover the source of the objections of his adversaries to be ignorance. We see some who have made up their minds that all parts of the brain do all things, that the power of solving a mathematical problem resides in the same portion of the brain as the sexual desire, and that the whole brain is equally concerned in both, just as one might suppose a flute to serve the purpose equally, as may be required, of a microscope and a spinning machine; and these confess they have never ascertained whether, when an individual has a particular faculty strong or weak, a particular part of the brain is correspondently large or small. Lord Byron is reported by Mr Medwin to have said, he was “inclined to think there was more in the chart of a skull than the Edinburgh reviewers suppose.”* Yet we see others oppose Phrenology by at once settling the question like Ugo Foscolo, who told me he believed “the brain was the organ of the mind, and that the various faculties resided in various parts, but that it was impossible to discover these.” Others pretend to have examined the matter by a reference to fact, and find Phrenology disproved. I have never heard of any of these facts against Phrenology that have not turned out to be unfounded. A very clever friend of mine had been to hear the Infant Lyra, and assured me she had no development of what

* Conversations of Lord Byron, by G. T. Medwin, Esq. p. 56.

is called the organ of Music ; whereas it is so remarkably large in her as, on one side at least, to be an absolute bump. In Mr Jeffrey's recent attack upon Phrenology, he speaks of the organ of Tune in the middle of the eyebrow, of Colour in the forehead, and of Concentrativeness in the side of the head. Mr Mayo says, that Gall's "inquiries have hitherto "proved as unsuccessful as in their conception they were "philosophical,"* and refers to the masks of Newton, Chatham, and Pitt, as developments not at all in phrenological accordance with the talents of these distinguished persons. This remark shows that Mr Mayo does not understand the very elementary principles of Phrenology. He judges of the whole characters of Pitt and Chatham from their masks alone ; while every tyro in the science knows that force of character, aptitude for business, eloquence, and sound judgment, depend fully as much on the propensities and sentiments, which a mask does not indicate, as on the intellectual organs, to which it is exclusively confined. Let any one examine casts of the intellectual organs alone of King Robert Bruce, or of Sheridan, and attempt to form even a guess at their character as it displayed itself in society, and he will utterly fail ; whereas, when the whole brain is considered, there is the most interesting harmony between the development and manifestations. Mr Mayo ought to study the Essay on the Character of King Robert Bruce, compared with his Cerebral Organization, in the Transactions of the Phrenological Society, and a Review of Moore's Life of Sheridan, in the Phrenological Journal, both by Mr W. Scott, and he will perceive the force of my present remark. So far as *intellect alone* is concerned, the masks of Newton, Chatham, and Pitt, are in exact correspondence with the manifestations. In Newton's mask, the lower part, or the organs of

* Outlines of Human Anatomy, p. 252.

Locality, Size, Weight, and other observing powers, are decidedly large; and every one knows that his eminence as a philosopher was conspicuous in the exact or mathematical sciences, which depend on these organs. The upper region of the forehead, or Comparison, Causality, and Wit, are not so large as the lower; and it is equally certain that, in his attempts at abstract reasoning in moral and metaphysical science, he was as unsuccessful as in the other department he was pre-eminent. The masks of Chatham and Pitt are equally in harmony with their intellectual manifestations;—and if Mr Mayo will attempt to point out specifically, instead of merely asserting generally the differences to which he alludes, I am convinced that he will be the first to discover the magnitude of his own error.

As a reference to fact always disproves these *facts* against Phrenology, so does a little inquiry most of those stories of phrenological blunders. If a bad Phrenologist makes mistakes, the science of course cannot be answerable for them; and if a good Phrenologist by chance is wrong, the fate of the science ought not to be thereby decided. The errors which have been committed by good and bad Phrenologists are all regarded as of equal weight, and each is disseminated with eagerness; and they are few, compared with the immense number of correct delineations of character, none of which are mentioned at the same time. Yet the latter produce their effects. When a Phrenologist, on inspecting a skull, declares that the person was a violent character, with no good disposition but his love for his children, and withal a mimic, and we know that this was actually the case, all candid and unprejudiced persons see that the qualities pronounced have no connexion with each other, could not have been branches of one general idea of the character, and that the judgment could not be the result of chance, but must have been founded on certain principles. But most of the stories of the blunders of good Phrenologists are absolutely without foun-

dation. Dr Spurzheim is represented to have said, that, on seeing Mr Coleridge, he pronounced that this gentleman could not be a poet; whereas Dr Spurzheim shows the impossibility of this by stating, that he knew beforehand it was Mr Coleridge the poet to whom he was to be introduced. Others, in their very arguments against Phrenology, display a total ignorance of its principles. In the life of the lamented Laennec, who has done more for the diagnosis of diseases than could have been hoped for from the whole profession in a century, Dr Forbes tells us, that years before the appearance of Dr Gordon's article in the *Edinburgh Review* he had written, in the *Journal de Medecine*, t. xii., one which would well bear comparison with it (I fear this intended praise is a severe satire), and that, after relating an anecdote of the first Vestris, who, having finished a dance, and being asked by a spectator if he was not much fatigued, replied, "*Mon-sieur, dans notre art la fatigue des jambes est peu de chose; c'est ici,*" (pointing to his forehead),—asks Gall, why there is not an organ for dancing as well as music and painting? Nothing but a total ignorance of the subject would have prompted such a question. As well might Laennec have expected a distinct pair of legs for dancing, although certain mental faculties must necessarily be employed in the performance.

Such being the circumstances of the science, our Society cannot but prosper; and I have great pleasure in stating, that considerable as our collection is at present, it will soon be doubled by the exertions of Dr Wright, to whom our obligations are so great, and by the kindness of some other gentlemen; and that we are certain of an ample supply of communications during the whole session. If great men reject Phrenology, without reading the works of Gall, we will lament their littleness in the midst of their greatness; and if any who are convinced will not join us, we will lament their want of courage. We will congratulate ourselves in having

boldly stood forward in defence of a doctrine which, in the words of Gall, "owes its origin to indisputable facts, that "have revealed the general laws through which they take "place; that lead to principles independent of the facts from "which they have been deduced; which receives additional "confirmation from every new fact, whether furnished by "chance or obtained by experimental inquiry; which has introduced clearness, security, harmony, and stability, where "before was only obscurity, vacillation, contradiction, versatility; which explains the moral phenomena and their modifications in different ages, in the two sexes, in the different states of health and disease, and in different nations; which "unfolds to us, in man and brutes, the secret of the diversity of "instincts, inclinations, and faculties, both of species and individuals; which shows to us from the polyp up to man, piece "by piece, the material causes of the gradual perfection of their "intellect; whose diminution and degradation it accomplishes "by inversely descending from man to the polyp, and cutting "off piece after piece; the numerous propositions of which destroying the most established errors to the right and left, mutually support and consolidate each other; which is eminently fertile in its application to human affairs, to education, the arts and sciences, the study of history, to medicine, philosophy, morality, criminal legislation, &c., and opens to the naturalist an immense field of observation."—L. i. t. vi. p. 502, "*et seq.*"

DR SPURZHEIM'S VISIT TO HULL.

To the Editor of the Phrenological Journal.

SIR,—“The Society for Phrenological Inquiry” having invited Dr Spurzheim to lecture at Hull, he commenced a demonstrative course on Thursday, December 6th, to a very good class, which continued to increase at every succeeding lecture. Those who heard him admired the richness of his intellectual stores, which he unostentatiously displayed before them (during the course); and this feeling was enhanced by the ease with which he initiated the class into the fundamental

axioms of the science of Phrenology. Although gifted with such a philosophic mind, his instructions were free from all pedantry, so that "those who went to scoff remained to pray;" to use an allegorical illustration, he has planted the Tree of true Knowledge, and it has taken deep root; we may rationally hope, as it embraces the happiness of our species, the sum of human misery and crime may, by his teaching, be somewhat lessened or mitigated. Indeed, when we reflect on the candour with which he discusses the merits of the science, the obstacles he points out, and the constant appeal he makes to the common judge, Nature! in verifying his assertions, that we cannot wonder his instructions carry an irresistible conviction to his audience.

But this disciple of *truth* still continues to investigate human nature, and to observe the causes for the infinite variety among them. It may therefore be interesting to the readers of the Journal to be informed of some of the visits he made to public establishments. The first one was to a workhouse, which, like other places of the kind, contains the aged, the insane, the idiot, and the children of illicit love. Among the latter there were a boy and girl, who were selected by Dr Spursheim for the extraordinary difference of their cerebral organization. The former had the frontal and sincipital regions very finely developed, giving the stamp of "nature's nobility" to him; whilst the latter had an organization quite the reverse; the basilar and occipital regions presented a considerable predominance over the frontal and sincipital, the cerebellum was an uncommon size, and Dr S. suggested that great care should be taken of her. But on the following day, when we went to take the models of these two individuals, the house-surgeon informed us, that the girl had already indicated a lewdness of manner, *although she is only five years old!* Her mother, we were told, was a very low and depraved prostitute, and her reputed father equally immoral and worthless. This is a strong instance, said Dr

Spurzheim, of the influence of propagation manifesting itself in a most lamentable manner.

Another day Dr S. devoted to examine the inmates of the charity-hall, which contains, in men, women, and children, above four hundred beings. The doctor selected two men, one with "Mirthfulness" very large, and, though in rags, his face seemed always "big with humour." The second individual had, with good moral feelings, the organ of "Marvellousness" very large, and religious topics was his constant theme. At every hour of the day you might see him with his Bible, endeavouring to find out the spiritual meaning. He told Dr Spurzheim "he had found the one thing needful, but he knew not another Christian in the house." In the same place five or six children more particularly struck the doctor's attention, amongst the rest two boys (brothers), who had the occipital and basilar regions very predominant, and some of the individual organs in them very large; Combative-ness, Firmness, and Destructiveness, particularly so. On being asked what they would wish to be, each answered, "A butcher;" and when further interrogated as to the reason why they made such a choice, they replied, "they liked to kill." Dr S. observed, that the natural language was in these instances strongly indicated. The others were also specimens of very low organizations. Casts of all of them we have procured.

Dr Spurzheim also visited the "Refuge for the Insane" (attended by the medical gentlemen of the establishment, and other individuals.) Among the patients there were some Dr S. pointed out with imperfect organizations, idiots from birth, fatuous persons, &c., which may be found in every asylum of the kind; but there were a few which the doctor selected as worth taking casts from, being instances of the aberration of the dominant feelings. One old woman with "Marvellousness" very large! She fancies herself constantly troubled "with devils in the head," she told us, that she not only felt them, but frequently saw them, *as they flew out of her head,*

and begged "some persons" might exorcise her of these infernal guests. Another individual, who became insane from the following circumstances, was one peculiarly interesting. He was a captain of a small sloop, and had a favourite son on board, who, whilst playing on the deck of the vessel, unfortunately fell over-board. Every means were used to save him without success. Therefore, to obtain the body, he followed the direction of the tide as far as Grimsby, where the child was washed up, and some individuals attempted to catch him with grappling-irons. This circumstance so pained his Philoprogenitiveness, Adhesiveness, and Benevolence (all which are very large in him), that he plunged into the water with his clothes on, and snatched his darling boy from it; but he was cold and covered with mud,—death had already claimed him! When brought to the shore, he placed him on the bank, and wiped the dirt from the child's face; afterwards he had a strong fit, and, when he recovered from that shock, he soon lost his reason. What is remarkable pathologically, and in reference to Phrenology, he complained of violent pain at the posterior part of the brain at the seat of Philoprogenitiveness, &c., and was treated with local applications. He is recovering.

Dr Spurzheim, by invitation, inspected the boys of a grammar-school famed for classics. Mathematics and geometry are also cultivated by the scholars. The doctor pointed out to the reverend tutor (a Phrenologist), that most of the boys had good perceptive and reflective faculties, particularly *Individuality*, *Eventuality*, *Constructiveness*, and *Number*. The merit of this teacher consists in observing the predominant powers, and exciting them by indefatigable activity, and by diversifying the lessons of his pupils he has applied Phrenology most advantageously.

The last place visited by this great observer of our species was the town-gaol, where he inspected many prisoners; but, on entering the felons' side, his eye passed rapidly over the

greater number of them, but rested upon two or three individuals, whom he inspected with magical rapidity, and instantaneously seized the peculiarity of their characters. This facility was the most surprising; for even those who had a quantity of hair on the head, he placed his hand or hands over the four regions, and his conclusions proved astonishingly correct.

Among the prisoners there was one for trial, a most notorious swindler; his intellectual organs were well developed; but from the organ of Veneration to Self-esteem appeared a most uncommon absence of brain; it resembled a skull with a portion sliced off; but the basilar and occipital regions, particularly the former, was very broad at Secretiveness and Acquisitiveness. The doctor said of this man, "You cannot believe what he says." The turnkey replied (with an expression of surprise at Dr Spurzheim's sagacity), "that he never met a greater liar; he had told him an unaccountable number of lies in less than twenty-four hours;"—"I had intended to ask you what you thought of him," &c.

Another individual, whom a worthy magistrate (that accompanied us) spoke of as one whose look and manner would deceive any body, but that he was a most notorious thief! Dr S. found him very large in Imitation, Secretiveness, *Firmness*, and *Self-esteem*. The latter combination induced the doctor to make the remark, that this person would always be a leader, such individuals would never be subordinate; and this proved to be the fact. He had always been the *head* man in all schemes of plunder; and as a sheep-stealer he was notorious, there being presumptive proof that he had stolen and killed upwards of two hundred! I need not add, that *Conscientiousness* and *Cautiousness* were both very defective. The fourth and last was a boy who had expressed a wish that he might be enabled to commit many robberies, and, after some years, to be brought to condign punishment, and, when about to be launched into eternity, he might hear the crowds

below him express with surprise, &c., "that was the celebrated ———, whose deeds were so daring," &c. Love of Approbation, Secretiveness, and Imitation, were extremely large in him, and the moral region defective. "Should his career of crime not be put an end to, he would continue the thief; but, from his organization, he must be only a subordinate being;" "for," said Dr S., "the organs of Self-esteem and Firmness are deficient in him." One thing with this youth was rather singular,—all his peculations of money and other property arose (according to his own statement), from his wish to go to the *Play*. Query—Did not some plot in a drama suggest the above circumstance as to his fate?

The Society for Phrenological Inquiry give a dinner to Dr Spurzheim to-morrow, December 28th; the particulars I will remit to you in a newspaper. I am, Sir, with sincere wishes for the promulgation of Phrenology, your very obedient servant,

J. L. LEVISON.

Hull, December 27th, 1827.

ARTICLE III.

THE MURDERER, PETER NIELSEN.*

THE following criminal case has lately happened in Denmark, in a small town, Slagelse, near Copenhagen: it has excited the greatest attention, and given rise to sundry psychological speculations. I have ventured, in the Danish

* We have much pleasure in giving the whole of Dr Otto's interesting case, and have only to request our readers to bear in mind that to our friend, English is a foreign tongue.—EDITOR.

Phrenological Journal, April 1827, to give my comment upon it; and I have had the pleasure of knowing, that not only my readers in general, but several distinguished lawyers in particular, have treated it with flattering attention, and approved of my opinion concerning it. It has been reprinted in a weekly paper, and has in this manner obtained an extensive circulation. It will therefore, perhaps, be of interest to my phrenological brethren in that country, to which not only my dearest remembrances cling, but to which, with regard to science, I owe my deepest and sincerest obligations. I am beforehand convinced, that the readers of this *Journal* will accede to my opinion about the case; I shall, therefore, communicate its details, as they were given in the daily papers, and then deliver my remarks upon it.


“This criminal is Peter Nielsen, joiner, 47 years old, father to 7 children; of which 6 were at home; of these he drowned 4, a girl of 9 years, and three boys, the one 6 years, the other $3\frac{1}{2}$ years, and the third 1 year old. It is true, that he at the preceding term of removal had been turned out of the house in which he lived; but he had got another dwelling in a loft with a watchman, had the sure hope to get another, and had got the promise of some money from the charity-house; he has likewise declared, that his turning out did not affect his mind considerably. He was not on the day he committed the murder, in want of money; he got every week two loaves from the charity-houses, and these he had still; he had lately earned 3 dollars, of which he yet had two, and he did not at that time want employment. His two elder children had on the same day got bread to sell for a baker in the streets. Many persons had conversed with him on the same day, before and after the misdeed, and all of them have borne testimony, that he neither was intoxicated, nor showed the least agitation of mind; he was, on the contrary, placid and tranquil; no considerable disagreeableness had happened to him; his wife had only been a little impatient about the difficulties of getting a

new house; he was likewise discontented with the circumstance, that the number of his children made it difficult to him to get comfortably lodged; yet neither he nor his wife had ever endeavoured to get entrance into the charity-house, and they were both able to work. Nobody knows, therefore, any external motive to his action; there must be an internal, even if he conceals it. Yet it is proved, that he never read mischievous books, nor ever showed any inclination to melancholy. His love to his children is testified by all. Whether he understood to educate them is another question. He says, that the idea of killing his children first came on him the morning of the same day, at ten o'clock; *that he felt he could not resist*. He went with three of them over a neighbouring field in order to execute his plan; but he found there too many folks; he returned then home, and said that he wished to take his children along with him into the fields. His resolution was only to drown the three youngest boys, and to spare the girl; but she desires absolutely to accompany him. He goes with them to a turf-pit on a field, far distant. On the way he endeavours to persuade the girl to leave him, and gives her 4s. 6d. to buy bread; but she will not leave him, and requests earnestly to accompany him. He says, he would have spared her, not because he loved her more, but because she had made more progress, and was better able to maintain herself; for he says, that his motive for killing the children was the fear of not being able to maintain them, and that they should become a burden upon others. He arrives now at the turf-pit, places himself near it, and two of the children at his side; he looks then a little into the water, embraces them, and pushes them all four into the pit. The three small children do not utter a sound, but the girl exclaims, 'Papa, save me!'. He sees them all move about in the water, but does not make one step to save them. He returns quietly to town, meets a watchman, and tells him that he goes to the magistrate in order to get the four dollars it had promised him, and then he discloses the

whole affair. Some persons went with him to the turf-pit, where in the mean time others had taken the children up and laid them upon the bank. He sat down on the same carriage upon which the dead bodies were placed, and manifested the same tranquillity of mind. Before disclosing the affair, he had been home. He had not even there shown the least agitation, and when his wife asked him about the children, he answered, he knew well where they were. This tranquillity of mind and want of repentance left him only a moment afterwards; he then wept and manifested great regret; but at the opening of the dead bodies he kissed the children, was rejoiced to see them again, helped the others to take them up and to replace them in the coffin, and now he is quite tranquil. He affirms, that he has not killed the children in order to procure happiness for them in heaven, nor from a desire to die, because he strongly wishes to live."

We leave it to every body acquainted with Phrenology to judge, whether Phrenology in this case, as the true philosophy of mind, stands proof or not? We ask him confidently, whether he is not able, in the most satisfactory manner, to explain this incident, and the state what occasioned it? We see here an evident example of *insanity* before us; for when a man acts against one of the strongest feelings of nature, violates it, as we have seen, without any sufficient external motive, then, according to our opinion, nothing but insanity can exist. We understand in this manner perfectly, "why it might happen, that the idea of killing his children did not come upon him before the morning of the same day at ten o'clock," and "why he felt he could not resist." We understand very well "why his mind remained tranquil after the action;" for we know that every strong propensity, (either as such in a healthy state or in a fit of insanity) by being gratified, for a time begets tranquillity and satisfaction in the mind; contentment and happiness depend upon the gratification of the most active propensities and sentiments, and happiness is the greater, the greater the number of the

faculties is that seek and obtain gratification. The fate of Peter Nielsen was, in our opinion, evidently a momentary insanity in the organ for *Destructiveness*. That his own children became a victim of it, does not prove that Philoprogenitiveness was *very* weak with him; for every faculty, even the strongest, may be overwhelmed and overcome by a strong passion or insanity in another. How many, otherwise very moral and honest men, (those with great *Conscientiousness*), do not in the hour of temptations yield to this or that passion? Do not the angry and irritated forget all regard to their best friends? Nevertheless, it is clear, that the weaker a certain faculty is by nature, the easier may it be overcome; and although, therefore, it is said, "he embraced and kissed the children," yet we think, that if Philoprogenitiveness had been very great, then his momentary insanity certainly would not have manifested itself against his children. If we ask how such a momentary fit of insanity can be produced, we will find the answer in analogous cases, supported by experience. Every circumstance able to produce a strong congestion of blood to the brain excites it to a too great and often morbid activity; so as spirituous liquors can put the whole brain in a higher degree of excitement, so that all ideas rise quicker and more vividly, (excitement of the organs of *Intellectuality*); Wit becomes greater by the excitement of the organ of Wit; the words flow easily and in torrents, even from the else silent, (excitement of the organ of *Language*), &c. In the same manner the lower propensities are put in greater activity, and are brought to act with a force, dominating all the other faculties by spirituous liquors, and by every other cause that produces congestion to the brain and its single parts. How many do not in a state of intoxication, or during a fever, &c. become quarrelsome and disputatious? (excitement of the organ of *Combativeness*); how many do not in such moments break every thing, and begin to fight even with their best friends? (excitement of the organ of *Destructiveness*); and so forth.



In the same manner, then, that a disorder in the circulation of blood by the mentioned congestion to the brain is able to produce giddiness or headache, in the same manner a particular congestion to that part of the brain which is the material instrument for the manifestation of Destructiveness, is able to cause an involuntary and invincible propensity to kill. The case is certainly "remarkable" for the psychologist, who either finds his views of the human mind confirmed or refuted by it; but it is no more "extraordinary" than the many that at all times have happened. If, therefore, those who are to judge in this criminal case, or those whose opinion about it shall be asked, are psychologists, as they ought to be, a true mental aberration will be acknowledged, and the unfortunate who suffered from it will not be put to death. Only those who do not know Phrenology will be disposed to call the case "inconceivable." *We* see here again one of those riddles of life perfectly clear from our principles, do not make any exclamations about the "incomprehensibleness of the human mind,"—and congratulate ourselves in having acknowledged and adopted the truth of a philosophy of mind, which, as we have seen, does not deny her illuminating torch even there, where all others find mere obscurity and darkness.

Copenhagen, Sept. 21, 1827.

ARTICLE IV.

THE ARGUMENTS OF DR MAGENDIE AND DR BOSTOCK
AGAINST PHRENOLOGY, READ TO THE LONDON PHRENO-
LOGICAL SOCIETY, DEC. 3, 1827, BY J. ELLIOTSON, M. D.

"PHRENOLOGY," says Dr Magendie, "which I scruple not to
"denominate a pseudo-science, such as was formerly astrology
"and necromancy, has attempted to localize the different kinds
"of memories; but these endeavours, laudable in themselves,
"cannot yet bear examination."—P. 113.

Now, astrology and necromancy were pseudo-sciences, not because imperfect, but because destitute of foundation. Necromancy is universally allowed to be so, and astrology, by being classed with it, is evidently regarded by Magendie in this light. No science, because imperfect, is a pseudo-science; a doctrine is *pseudos* because unreal, because built on a false foundation; because, in short, it is no science, nor capable of becoming one. Such must, therefore, be Magendie's meaning; and yet, most strangely, he calls the efforts to cultivate this unreal science laudable. Laudable, then, would it be to cultivate necromancy, for with him necromancy and Phrenology are on a level; and these laudable endeavours "cannot yet bear examination!" If not examined, how can they be known to be futile? But he says, "not yet bear examination;" so that some day or other they may, notwithstanding the science is as destitute of foundation as necromancy; and if they have not been examined, from their supposed want of foundation, how is it proved that they are good for nothing?

But farther on he informs us, that he has "been engaged "at intervals on experiments directed to this point," (the use of the different parts of the brain, in regard to the understanding and instincts), "and will make the results known as soon as they appear worthy of notice."—P. 119. He therefore regards such a science as founded in nature, and intends to cultivate it; but the results of the labours of others are unworthy of notice, although not yet capable even of examination, and therefore, of course, not examined; and he intends to cultivate the inquiry, although like the prosecution of necromancy.

Surely never was such a confusion of statements made by a philosopher. We may, however, collect from this, that Magendie utterly despises Phrenology; and yet it is easy to prove that he admits much of our science.

"The dimensions," he asserts, "of this organ (the brain) are proportioned to those of the head."—P. 103. "The

“only way of estimating the volume of brain in a living person is to measure the dimensions of the skull.”—P. 104.

Now, if the dimensions of the whole brain bear a proportion to the head, it is certain that the dimensions of most separate parts of the organ must do the same. This Anti-phrenologist, therefore, does not side with the party, once numerous, who denied the possibility of forming any judgment respecting the brain by measuring the cranium.

In the same paragraph he goes a step farther :—“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.”

In the next page he alleges, that the brain changes exactly as Gall asserts, and in the proportion that all allow the mind to change. “The substance of the brain is almost liquid in the fœtus; it is more firm in infancy, and still more in manhood.” In the number of his *Physiological Journal* for last January he states, as Cotugno did long ago, that, “in general, at seventy, and especially at eighty years of age, the cerebrum and cerebellum are far from having a volume sufficient to fill the cavity of the cranium.” P. 4. Hence “one convolution is often six or eight lines distant from the next. Frequently, at this age, the surface of the brain has hollows an inch or an inch and a half deep, and of at least equal breadth.”—P. 5.

“The brain,” he observes in his *Physiology*, “is the organ of intelligence.”—P. 108. “Whatever be the number and the diversity of the phenomena which belong to human intelligence, however different they appear from the other phenomena of life, though they evidently depend on the soul, it is absolutely necessary to consider them as the result of the action of the brain, and to make no distinction between them and the other phenomena that depend on the actions of that organ.” “The functions of the brain are absolutely subject to the same laws as the other functions; they become developed, and decay in the progress of age;

"they are modified by habit, sex, temperament, and individual disposition; they become confused, weakened, or elevated in diseases; the physical injuries of the brain weaken or destroy them."—P. 109. "There are even individuals to whom nature, *by a vicious organization*, has refused the faculty of employing signs, and forming abstractions or general ideas; they remain all their lives in a state of stupidity, as is seen in idiots."—P. 115. "Crimes, vices, bad conduct, spring from false judgment." I take no notice of this strange perversion of language, but proceed to quote:—"Pure judgment, or good sense, and false judgment, or wrong-headedness, depend on organization."—P. 114.

Those Antiphrenologists, therefore, who, with the Edinburgh Reviewers, deny that the brain has any thing more to do with the mind than any other organ, will not find Magendie in their ranks; any more than their friends who deny the possibility of judging of the brain by the cranium.

But Magendie is still more of a Phrenologist:—"Every animal fulfils this (its own preservation and that of the species) in its own way, and according to its organization; there are, therefore, as many different instincts as there are different species; and as the organization varies in individuals, instinct presents individual differences, sometimes strongly marked."—P. 116.

Notwithstanding he professes to believe in the old doctrine of memory, judgment, &c. being the component faculties of the mind, he actually says,—“There is a memory of words, of places, of names, of forms, of music, &c. It is rare that one man enjoys a union of all these memories; they scarcely show themselves, except in an insulated or solitary state, and almost always form the most distinguishing trait of that understanding of which they form a part.”—P. 113. Now, if this is the case with memory, it cannot but be the same with the other similar faculties, perception, judgment, imagination (and yet M. Magendie considers Phrenology a pseudoscience! and yet the efforts of Phrenologists will not even bear examination!) Yes, they will bear examination; he has examined them, or he could not have written a sen-

tence which will be found at page 118:—"The instincts, "the innate dispositions, occupy Phrenologists much at present; their efforts are particularly directed to the triple object "of ascertaining, of classing the instinctive dispositions, and, "above all, of assigning to them distinct organs in the brain; "but it must be confessed that they are still far from seeing "their attempts crowned with success." Proof of this he offers none, but contents himself with a mere general assertion, and reminds us of his denial of the existence of lymphatics in birds,* although he says he dissected more than fifty; when several Germans soon afterwards looked for them, and it was universally confessed that their attempts were crowned with success.

In Dr Bostock's last volume of his *Physiology*, vol. III. p. 263, *Nature and Object of Cranioscopy*, we read, "The subject was first placed in this point of view by Drs Gall and Spurzheim, who, in consequence of their recent dissection of the "brain, and their mode of separating its different parts from "each other, were led to conjecture that these parts were appropriated to distinct mental faculties."

Now, 1st, Dr Gall expressly states, over and over again, that he made his discoveries of the faculties and their organs before he made any in the structure of the brain; and he particularly insists, in numerous parts of his works, that the functions of no organ can be learnt from anatomy alone.

2d, I am not aware that any part of the brain separated peculiarly in Dr Gall's method is considered by him as having a distinct faculty appropriated to it. The organs are chiefly the convolutions of the cerebrum and the cerebellum, and these were seen separate by all the world.

"Partly," continues Dr Bostock, "as it would appear from "his idea of the anatomical structure of the brain, in what regards the relation of its parts to each other, and partly from a "preconceived hypothesis, he fixed upon the external convolutions of the cerebrum and cerebellum as the respective seats

* He could find them only in the necks of swans and geese.

"of the individual faculties." The truth is, that Gall, proceeding upon no hypothesis, but seeing as a fact, allowed now by nearly all the world, that the brain is the organ of the mind, made observations to learn whether peculiar talents were accompanied by large development of particular parts of the head. Ignorant whether this was the case or not, he satisfied himself by observation that it was so.

Dr Bostock arranges the arguments in favour of Phrenology in two divisions,—1st, General Considerations of Probability; 2d, Particular Facts. The general arguments, he contends, are but indirect. He conceives, "that every part of this organ (the brain) must have a necessary connexion with the exercise of those powers, as every part of the eye and ear has a reference to the production of vision and of sound." Now there is here no analogy. The eye and ear are each an organ entirely for one sense; and because they both furnish sense, we might as well suppose that both must be always concerned in sense at the same time, as that the various parts of the brain must act simultaneously. The faculties of the mind are as distinct as the sense of sight and hearing; parental love and the faculty of Tune are fully as distinct. Indeed, we might as well consider the organs of sight and hearing one organ as any two of the cerebral organs; the circumference is the eye and ear—separate; but the nerves run into the brain, and at length pretty near to each other. No one can tell their ultimate distance, or at least deny their ultimate connexion.

"The only anatomical argument" considered by Dr Bostock as "of so tangible a nature as to allow of any thing approaching to direct deduction, is derived from a consideration of the degree in which an injury of the brain produces a corresponding injury of the mental powers." To this argument he objects, 1st, That the connexion between the injury of the brain and the mental lesion does not indicate the relation of cause and effect. But certainly, although we can:

not say why the brain, when injured, cannot perform its functions, the truth is evident that it does not, and the relation of the effect and cause is indisputable. He objects, *adly*, That our facts of lesion of particular faculties attending lesion of particular parts of the brain are not satisfactory. On this subject I refer to Gall's work in 8vo, and to a paper by Dr Combe in the Phrenological Journal. We have many facts of lesion of the very faculty which is assigned to the organ found injured or diseased. Those respecting the cerebellum are very numerous; many will be found in Gall; and the Antiphrenologist Magendie has just completed his opposition to Phrenology by publishing the case of a man who, for some days before his death, had such a constant erection that the catheter was introduced with difficulty, and in whose corpse the erection still continued, and struck Magendie as he entered the dissecting-room. He informs us, that the surface of the cerebellum was inflamed, and on its left lobe was a deep dark-coloured softened part, smelling strongly of gangrene.—*Journal de Physiol.* 1807, January. A case is published by Mr Hood, in the Phrenological Journal, of an apoplectic cell in the situation of the organ of language in a person who had forgotten names; one of a careful man who became exceedingly careless, and in whose head the part corresponding with the organ of Circumspection was found diseased, will be found in the Phrenological Transactions. We have instances all around us of idiots wanting certain organs, and equally wanting the assigned faculty. The reason that we have not more illustrations is, that the true faculties were not known till now, and therefore their lesions could not be ascertained by surgeons. We must also remember that the organs are double, and even may sometimes perform their office sufficiently well for common people in common life, as is the case with our testicles or our kidneys; and, above all, we must remember, that after an accident the patient often dies long before any change in a faculty can be observed.

Lying in bed, and thinking only of his sufferings, how seldom can a patient afford the means of learning how he is situated in regard to sexual desire, to calculation, to locality, &c.

He then contends that size has no relation to properties of function, except when connected with muscular force, as in muscular contraction. Now this is incorrect. A breed of cows with large udders will, *ceteris paribus*, give more milk than with small. This I have verified repeatedly in Switzerland, and it is well known to the peasants. The optic and olfactory nerves are of large proportionate size in those animals which have acute smell or taste; and on this point I beg to refer to another excellent paper by Dr Combe in the Phrenological Journal. Phrenologists allow the influence of original fibre; but fibre,—quality, being the same, the greater universally is the power as the size is greater. In the case of the forehead, where is to be found an adult forehead rising but half an inch above the eyes, and expanding to but three inches in breadth, that does not belong to an idiot?

Dr Bostock presumes there would be a distinct organ for memory, for judgment, &c. But here he forgets that Phrenology does not allow those faculties; it considers them under one of the fundamental faculties, and they cannot therefore have distinct organs. He conceives too, that each organ of sense should have a cerebral organ corresponding to it. Phrenologists do not deny that there are, but have not discovered them; they do not deny that organs yet remain to be discovered.

He conceives that the structure of the convolutions is not so elaborate as might be expected in mental organs. The question is not what we should think, but what do we observe? and he states, that the uses of the more minutely-organized parts within are unexplained. I fear Dr Bostock has not studied Gall and Spurzheim's anatomy. The structure of the convolutions is as delicate and complicated as of other parts of the brain; and the organs are not mentioned by Gall to be situated at the surface only, but to run into the very heart

and body of the brain; he traces the fibres all through the organ from the medulla oblongata till they expand into the convolutions. Dr Bostock doubts if the convolutions always occupy the same situation, or correspond with the same portion of the surface. On this ground we can assure him that no Phrenologist can err. He farther urges, that the cranium is not always of the same thickness. Gall long ago allowed, nay, was the first to mention, that a difficulty sometimes arose at the frontal sinus, and stated that, in old age, when the inner table shrinks, the size of the brain cannot be judged of, even in disease, in which a similar occurrence may take place. But in sound adult heads the variation of thickness is very rarely so considerable that the relative size of the subjacent organs may not be most accurately ascertained.

After all these objections, however, Dr Bostock most candidly confesses, "that the question can only be decided by an appeal to facts. These facts are of two kinds, although exactly coinciding in their object. We must obtain skulls that are marked by some peculiarity of form and shape, and must then endeavour to learn what was the natural character of the subject; or we may take the cases of those who have shown some peculiarity of disposition and character, and may examine the figure of their skulls. A sufficient number of these observations, carefully made and impartially viewed, cannot fail to decide the question, whether there be any ground for the appropriation of the different parts of the brain to distinct faculties, and more particularly, whether we have it in our power to ascertain their seat by an actual examination of the cranium. On this point I must give it as the conviction of my mind, that the facts hitherto adduced are altogether inadequate to the end proposed, and that they are frequently of doubtful authority and of incorrect application, and that nothing but the love of novelty, and the eagerness with which the mind embraces whatever promises to open a new avenue to knowledge, would have led men of talents and information to place any confidence in them."

We think these facts sufficient to establish such a number of the organs as justifies us in asserting the existence of the science. Dr Bostock does not. But he specifies nothing. He does not inform us what organ and faculty has not a sufficiency of facts for its foundation. He rejects altogether.

But does he know what are the facts? Has he read the 4to work of Gall in 4 volumes, or the 8vo in 6 volumes? The latter, so instructive and entertaining, he does not even mention, though he gives a list of phrenological works. I presume, therefore, that he has not read it. Has he perused the 4to? From his giving only the faculties and classifications of Spurzheim, and not that of the great founder and discoverer, Gall; from his mentioning Spurzheim as having in particular appealed to facts, whereas Gall has always done so; and from speaking of "Dr Spurzheim and his disciples," as though Gall's labours were unknown to him; and, from the general object of his observations, I have no doubt that Dr Bostock has acquired his ideas of Phrenology only second-hand, through the writings of Dr Spurzheim and Mr Combe, as most of the English have done. If I am wrong, Dr Bostock will pardon me; but such is the impression on my mind. And if Dr Bostock will read Gall himself, he will find the facts *innumerable*, obtained by immense labour, and each observation "carefully made and impartially recorded." The perusal of the English works, whatever be their merit, must leave many minds dissatisfied. In Dr Gall's work such a mass of evidence is adduced as astonishes the mind; the whole is recorded with all the simplicity and strength of truth; the origin of each discovery is faithfully and artlessly narrated; the reflections show a mind of the highest power, and devoted to the love of truth. The mighty mind of the writer will be instantly felt. So great is my respect for Dr Bostock's judgment and impartiality, that I could bring myself to entreat as a favour that he would read Gall's stupendous works. I do not hesitate to use this epithet; for posterity, I am satisfied, will regard him as the man of the present age.

Dr Bostock's mildness and candour cannot be too highly applauded; and many of the enemies of Phrenology should read the following passages:—"I have thought proper to

“ abstain from entering on topics which have been generally urged against it (Phrenology), since I consider them the off-spring of bigotry and illiberality. If, on the one hand, its advocates have been hasty and credulous, it must be admitted, on the other hand, that its opponents have been too frequently harsh and uncandid. But its principles are too widely disseminated, and have taken too deep root in the public mind, to be repressed by mere authority, or controverted by ridicule; they must be put to the test of experiment, and by this standard will their merits be ultimately appreciated.”

“ They (the strictures against Phrenology) have been more characterized by the brilliancy, perhaps flippancy, of their wit, than by the soundness of their arguments.”

Phrenology has gained much by Dr Bostock's observations. It must in future be considered disgraceful to attack our science by arguments of bigotry, or of illiberality, or by attempts at ridicule. No opposition but that of fact must in future be thought of. Facts are what the true Phrenologist values above every thing; for every fact brought against the science, so far from injuring it, will, to the surprise of the assailant, become a part of its foundation, and add to its stability.

DINNER BY THE PHRENOLOGICAL SOCIETY TO DR SPURZHEIM.

ON Friday, 25th January, 1828, the Phrenological Society gave a dinner in Barry's Hotel, Prince's Street, in honour of Dr SPURZHEIM; Mr G. COMBE was in the chair, supported by Dr Spurzheim and Sir George S. Mackenzie on the right, and the Honourable D. G. Halyburton and P. Neill, Esq. on the left; Mr JAMES SIMPSON acted as Vice-president.

The CHAIRMAN, after the King and the Phrenological

Society, proposed the health of Dr Gall. Having, on a former occasion, expressed his high estimate of the boon conferred on the human race by Dr Gall's discovery of the functions of the brain, and paid his humble tribute of respect to the genius, the acquirements, and estimable qualities by which he, the great founder of Phrenology, is distinguished and adorned, and recollecting also the intense sympathy with which the Society had entered into these sentiments, he felt it impossible, on the present occasion, to add any remarks that could deepen the impression then made. It was superfluous to utter a word on the subject of the great merits of Dr Gall; every Phrenologist knew them far to exceed all the Chairman's feeble powers of description. The name of Dr Gall to a Phrenologist was synonymous with every thing that is great in intellect, intrepid in investigation, and bold and persevering in the announcement of truth. Without farther observations, therefore, he gave—"The health of Dr Gall, with long life and prosperity to him;" which was drank with three times three, and loud applause.

The CHAIRMAN again rose, and spoke nearly as follows :—
Before proposing to you the toast of the day, it is my desire to make a few preliminary observations on the progress of science, and its effects on the happiness of mankind.

In tracing the history of knowledge, we discover that men have adopted general conceptions, and formed hypotheses from fancy, long before they have observed nature exactly, and drawn inferences from facts. During the brightest periods of Greece and Rome, and also during the dark ages, each individual philosopher drew his theory chiefly from imagination; and hence books were written and lectures delivered in support of the opinions of men, much more than in elucidation of the constitution of nature. Attention being directed to *opinions*, science remained barren, genius wasted itself in wordy disputations, and at the close of centuries mankind were not advanced in practical wisdom nor in enjoy-

ment. While, for example, alchemists speculated on the means of converting every substance into gold, the arts profited little by their labours; and while astrologers sought to read destinies in the planets, virtue was not advanced, because happiness and misery were separated in imagination from actions, and connected with physical influences belonging to a distant sphere. But after chemistry had been substituted for alchemy, the knowledge of nature obtained by observation changed the face of civilized society; arts multiplied and advanced with a rapidity previously inconceivable, and thousands of enjoyments were added to gladden the heart of man. The steam-engine now ploughs the deep, performs the labour of millions in manufactures, and promises ere long to transport most cumbrous loads from store to store, to carry the traveller from city to city, and even to bear the beautiful and the gay up the mountain glen as well as on the smooth surface of the lake.

These are the results of physical science, founded in nature. Until Phrenology was discovered, however, the philosophy of mind was conversant chiefly with wordy opinions and phrases, and presented a painful contrast in utility to its sister sciences. I readily acknowledge, that metaphysical authors have displayed much refined ingenuity, have analyzed consciousness, and described many of its phenomena, and, what is of more importance, have in some instances successfully elucidated the principles of morals; but in regard to the utility of their labours, I would ask, where is the institution in education, in jurisprudence, in the relations and practices of society, founded of design on the known and acknowledged nature of man? Our institutions, customs, and manners have to a great extent originated in blind impulse, and grown up at random. In tracing the history of our individual attainments, how little of the physical, moral, and intellectual nature of man was explained to us at elementary schools; how little at classical seminaries; and still how little in courses of logic and moral philosophy! How

few are the items of knowledge, flowing from these fountains of instruction, that in subsequent life have served to guide us in our enterprises, and to protect us from dangers.

At last, however, the dawn of a brighter period has approached. Man was first the victim of the lowest propensities. Amativeness, Combativeness, Destructiveness, and Acquisitiveness, were the grand motives of his life. In the ages of chivalry, he ascended one step in the scale of faculties ;—he then exhibited gross sensuality, cruelty, and rapine, combined, in grotesque companionship, with lofty pretensions to religion and high sentiments of honour. The activity of Self-esteem, Love of Approbation, and Veneration, was added to that of the lower propensities. At length he has arrived at the stage of intellect and moral sentiment, and at this point he at present remains. By almost universal consent, philosophers now admit, that knowledge, industry, and virtue, and not war, rapine, fraud, and violence, constitute man's chief good ; but how blindly do they now grope to find out the methods by which industry may be applied without producing over-abundance, in which Benevolence may obtain gratification without encouraging vice, and in what way knowledge may be attained that will lead to practical happiness. Phrenology seems to have been discovered when it could no longer have been done without. Phrenology unfolds the constitution of the mind, and enables us to trace man's relations to external objects. It is a most practical science. In pointing out the influence of organization on the manifestations of the mind, it enforces the indispensable necessity of temperance, exercise, and activity, to the enjoyment of agreeable mental sensations ; it guides the mother in educating her children ; and, if it be the true theory of human nature, we may venture to predicate, that the statesman will never succeed in procuring permanent happiness for a nation until he shall have availed himself of its lights, and submitted to its laws. Phrenology enables us, for the first time since the world began, to compare the institutions, practices, and

maxims of society, with the actual nature of man, and, while it unfolds much that is imperfect, it shows the way by which much may be improved. In short, it will in due time prove to be the highest and noblest, as it has been the latest of modern discoveries. It carries in its train changes in human institutions which the boldest imagination cannot contemplate without wonder, but which will partake of its own nature; they will be the peaceful triumphs of light over darkness, morality over vice, religion over superstition and profanity, and of the love of God and our neighbour over all selfish and exclusive passions.

It is due, gentlemen, to the great founder of this science, to his illustrious coadjutor now beside me, as well as to you and to truth, to state the magnitude of the discovery in these terms,—terms not exaggerated and inflated, but too cold and feeble to do justice to so mighty a subject. I need not recount to you the merits of Dr Spurzheim, they are written indelibly in the history of the science; to him are we indebted for introducing Phrenology into the British isles; to his courage and perseverance do we owe the progress which it has made amongst us, and that it has withstood the critic's argument, the satirist's ridicule, and all the calumnies and misrepresentations which have been heaped on the cause itself and its defenders. Dr Spurzheim, gentlemen, has enriched our science with the most valuable anatomical discoveries; he has established several highly-important organs in addition to those pointed out by Dr Gall; he has infused philosophy and system into the facts brought to light by observation; and, above all, he has dedicated his life to the best interests of mankind by teaching them those splendid and useful truths.

I have often said, and take pleasure in repeating, that I owe every thing I possess in this science to him; his lectures first fixed my wandering conceptions, and directed them to the true study of man; his personal kindness first encouraged me to prosecute the study thus opened up; and

his uninterrupted friendship has been continued with me since, communicating every new idea that occurred, and helping me in difficulties which embarrassed my progress. It is eleven years this very month since, by the kindness of Mr Brownlee, I was first introduced to Dr Spurzheim; and 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 for ever, I would scorn the gift; nay, were every thing 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. In speaking thus, I am sure that I express not my own sentiments alone, but, in a greater or less degree, those of every other individual now present, according to his practical acquaintance with the science. The highest tribute therefore is due to Dr Spurzheim, and it is delightful to pay it. Our meeting is a proof of the sagacity with which he uttered a prediction respecting this city eleven years ago, when the tide of ridicule was at its height; he then said, that in Edinburgh would the science first flourish; and our presence this day is the fulfilment of his prediction.

On a former occasion, I have said, how would we rejoice to sit at table with Galileo, Harvey, or Newton, and to pay them the homage of our gratitude and respect, and yet we have the felicity to be now in company with an individual whose name will rival theirs in brilliancy and duration; to whom ages unborn will look with fond admiration, as the first great champion of this magnificent discovery; as the partner in honour, in courage, and in toil, with Dr Gall; as the rival in genius of him by whose master-mind the science of man started into existence. Dr Spurzheim, gentlemen, is an historical personage;—a glory dwells on that brow which will never wax dim, and which will one day illuminate the civilized world (*great applause*). His greatness is all moral and intellectual. Like the sun of a long and resplendent day,

Dr Spurzheim at his rising was obscured by the mists of prejudice and envy, but in ascending he has looked down upon and dispelled them. His reputation has become brighter and brighter as men have gazed upon and scrutinised his doctrines and his life. No violence and no anguish tarnish the laurels that flourish on his brow. The recollections of his labours are all elevating and ennobling; and in our applause he hears not the voice of a vain adulation, but a feeble overture to a grand strain of admiration, which a grateful posterity will one day sound to his name.

Let us drink—"Long life, health, and prosperity to Dr Spurzheim." (*Drank with all the honours, and immense applause.*)

Dr SPURZHEIM rose and said,—Mr Chairman—Gentlemen—I never felt so much as at this moment the want of mental powers necessary to express the gratification and gratitude I feel. This day is for me a day of joy which I never hoped to see. My joy would be complete were Dr Gall amongst us. (*Loud cheers.*) The ideas crowd upon me, and I scarcely know what to say. I heartily thank you, in the name of Dr Gall and in mine, for the honour you have done us in drinking our healths. I, in particular, thank you for the distinguished reception you have given me on this occasion. Dr Gall and myself often conversed together about the future admission of our doctrines. Though we relied with confidence on the inviolable laws of the Creator, we, however, never expected to see them in our lifetime admitted to such a degree as they really are. I often placed my consolation in man being mortal, or in future generations, to whom it is generally reserved to take up new discoveries; but we are more fortunate than I thought. I repeat my thanks for the present enjoyment; it is a great reward for my former labours, and will be a great encouragement to my future pursuits.

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when asked, in regard to this great founder of our science, to be obliged to confess *Virgilium nunquam vidi*; and I feel as if I were discharging a part of the debt of gratitude under which he has placed me, when I bear public testimony in his presence to the pleasure and benefit which Phrenology has afforded me in my own speculations, and still more to the unspeakable advantages I have derived from it in my professional capacity.

As reference has been made to this subject, I think it right to declare, that I have found the greatest benefit from the science as a minister of the Gospel. I have been led to study the evidences of Christianity anew in connexion with Phrenology, and I feel my confidence in the truth of our holy religion increased by this new examination. I have examined the doctrines of our church also one by one in connexion with the truths of our new science, and have found the most wonderful harmony subsisting between them. And, in dealing with my people in the ordinary duties of my calling, the practical benefit I have derived from Phrenology is inestimable.

But, to revert to the subject which led me to address you, I am sure, Mr Chairman, that you must have felt with me the contrast between this meeting and the time when, unknown and unregarded, our Society was opened in Hermitage Place. But, delightful though it be to witness the progress Phrenology is making, I never can experience a purer pleasure than when I was a guest in your house, with only two or three friends who dared to avow themselves, when we delighted ourselves with looking at the new truth, and in hoping for better times. Better times we always confidently anticipated. The moment we satisfied ourselves in regard to the evidence upon which the science rests, we saw that Phrenology would be immortal, and we felt it opening up to our minds new views, in regard to the condition of our nature, and the destinies of our race. With these views, it required but little of the moral courage which has been

kindly ascribed to us to avow ourselves Phrenologists. Amidst the varying clouds of human opinion, we saw—to use a scriptural expression—that our place was the munition of rocks, and there was little danger in unfurling our flag there. We had nothing to fear from the *reasoning* of our opponents; and as for their ridicule, so thoroughly am I devoted to the science, that I have always experienced a degree of satisfaction even in being laughed at for being a Phrenologist. As an individual, I can claim little or no merit for any service I have done to the cause; and I can only rejoice, that at so early a period I was led to see its importance, and to experience its benefits.

But, gentlemen, though I can claim no merit as one of the founders of the Society, there is one individual among our first members, whose services have contributed incalculably to the diffusion of the science. You must all know to whom I allude, and I am sure you will agree to the request of pledging to his health. It is not necessary to enter into a consideration of his excellencies. I shall only say, that, after many years trial, I have found him one of the steadiest and best friends I ever had. His merits, as a benefactor to our science, need no praise of mine; they are known to you all, and have already secured for his name a place next to those of Dr Gall and Dr Spurzheim. I propose therefore the health of our Chairman, Mr George Combe, the founder of this Society.

The CHAIRMAN returned thanks; but disclaimed the honour of being the founder of the Society. He suggested a Phrenological Society to Mr Welsh, as an institution desirable in itself, and which time would certainly bring forth. Mr Welsh declared, that no time could be more suitable than that then present, and in a few days thereafter the gentlemen named by Dr Spurzheim expressed a similar conviction, and the Society was instituted accordingly. Mr Welsh had supported it with great zeal and talent during the first years

of its existence, and to his exertions it was greatly indebted for its success.

In allusion to the reception of the toast of the day, and Dr Spurzheim's reply, Mr SIMPSON, the Vice-President, said, I am tempted, Mr Chairman, to exclaim with Masbeth,

"If you applaud him to the very echo,
"It will applaud again."

Holding it to be the perfection of the functionary at *this* end of the table to be a good echo to the yet more exalted personage at *that*, I trust to be able to discharge all my duty, strictly responsive, with fidelity. But I could covet a share of the license of the echo in Ireland, which sometimes answers more than it is asked. May I crave a slight extension to me of this really valuable Hibernian latitude, and when the cry is "*Spurzheim for ever!*" may the answer be, "*The Cause of Phrenology over the world!*"

Leave being given by acclamation, Mr S. proceeded.

A year has passed since last this room resounded to this animating sentiment. Has that year, or has it not, advanced the cause? Let us hear both sides. Report is rife in our good City, that Phrenology has expired. Philip is dead, and the *Athenians* are shaking hands in the market-place. Some more cautiously opine, that the giant only slumbers; and that it were well to tread softly, with finger on your lip, lest he should wake refreshed.*

If you demand the proof of either hypothesis, you hear that the subject is *never* heard of. Where? O! in conversation,—at dinner-parties,—in literary coteries. If this were true, as it is not, especially since Dr Spurzheim came, it would prove, not that Phrenology is exploded, but merely that it is neglected by the genius of gossip, whose aliment is

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novelty. The established truths of science have long ceased to be wonders. In this city Phrenology has had a tract of wonder beyond all proverbial duration, for it has lasted five or six years. It should have no reason to complain, after this, that it begins something less to engross the tea-table. Alas! for truth if table-talk were its only test and medium! Galileo, Newton, Harvey, Jenner, Watt, had lived in vain! We *hear* of the splendid discoveries of these great men rarely in conversation, at dinner-parties, even in literary coteries; but each and all of the truths which they bequeathed continue, nevertheless, to bless human lot, and dignify human nature. No, Sir! Phrenology is not dead. If there is less said about it, there is more doing in it. The hive of fashion may buzz about newer flowers, and true science will gain by the riddance. The silent march of science is a synonyme with its quiet possession. The stream that was *heard* among obstructing rocks and pebbles is noiseless when it sweeps, a deep and solemn flood, unresisted to the main.

Now, Sir, be pleased to attend to the other side of the account. We hear of Phrenology—ay! from the four corners of the earth! Friendly powers—to borrow a lofty style—friendly powers in Europe, Asia, and America, continue their assurances of zealous co-operation! (*a laugh.*) It is whispered to me by a friend at my hand, that Africa is not behind; then, after all, the hemispheres *are* symmetrical. (*a laugh.*) In no former year have our museums drawn more of a tribute—which I marvel has not been called *Turkish* by our witty opponents—of *heads!* but heads, as the indices of the varieties of the human race, exposed by us to inform science, not to glut revenge. Not only have distant regions, but distant ages,—even the Greek sarcophagus and the Egyptian catacomb yielded the chief treasure they contain, the human head, to enrich our induction, and extend what an accomplished foreigner, who lately saw our national varieties, with great felicity denominated, “*une geographie morale.*” This year has seen new lectures instituted; new societies formed; a Journal sent forth in

the north, in the another tongue of Tycho Brahe; the press waxing friendly at home, all over the empire;—nay, the conductor of one of the leading Reviews unwillingly—we know it was unwillingly, and we hope for better times—surrendering a declaration for the cause, *actually in types*,—to what? to the fears of his publisher, founded on the solemn opinion of the family apothecary!*

Prejudice has made a long march this year on its retreat. Never, assuredly, was poor worn-out ridicule so mute, so ashamed of his trumpery magazine of wit, so sick of the jingle of his own bells, that he dare not move his head. *He* is dead, and it is his decease that has been mistaken for Phrenology's. I could name to you, if I might, some "worthy seniors," some "rulers," lately disdaining, hating, and rejecting, who are beginning to look thoughtful, and ask questions, and admit a point or two:

"These things to bear,

"Would Desdemona seriously incline:

"But still the house-affairs would call her thence;

"Which ever as she could with haste despatch,

"She'd come again, and with a greedy ear

"Devour up the discourse——

"Whereof by parcels she had something heard,

"But not intently——

"'Tis strange, she swears, in faith, 'tis passing strange.

.

"There's *something* in their mysteries methinks,

"Though, sooth to say, they carry them too far."

Yes, Sir! even to the bearded Bassanios and Gratianos—not alone to the Desdemonas, the Moor is come less swart. But to how many unjaundiced eyes has not the year unveiled the great truth in all its native attractions,

"Fair as the dawn, and radiant as the day!"

Into how many youthful minds, harnessed to the old *curriculum*, has it not let in a light which will yet compensate time and patrimony, and lighten these future men and their

* This article is now before the public in another Review, No III. of the Foreign Quarterly.

children's children ! This year has seen the finest and largest lecture-theatre in Europe—the London Institution—nobly seconded by its directors, *for the second time*, and crowded to its doors, to “devour up the discourse” of the foremost teacher of Phrenology ; has seen Cambridge, *for the second time*, open to him her academic gates, never again to be reproached—least of all from this end of the island—with opposing the bolts and bars of monachism to the march of mind ; has seen Hull suspend her commerce to listen to truths that will give that commerce a nobler character and a more trustworthy foundation ; has seen here, in ~~the~~, attended by listening and admiring crowds—here, where all his former recollections are of abuse and insult—here, actually our guest, the man who first wove the “magic web” from the scattered threads, first raised a philosophical system of exquisite beauty and harmony from the most extensive induction which has yet enriched science, and earned for himself a name among the most exalted of human benefactors. When in full and hostile academical senate—I will not say where—I am not allowed to say by whom,—an inaugural treatise challenged public disputation on a phrenological analysis of hypochondria,—that mysterious influence which, baffling medicine, strikes, without a cause to human eye, the happy with “severest wo,” and visits the mansions of peace, and confidence, and joy, with tears, and horrors, and suspicions, and suicides,—the author manfully fought under the banner of our illustrious guest, and inscribed on his title-page, a legend to his genius and virtue, as without a rival in the investigation of the nerves and brain, and the father of a new and better medicine in that vital field. “Necnon”—thus runs the concise Latinity—“Necnon Phrenologiæ, fun-
 “datissimæ et nunquam perituræ philosophiæ mentis, tam
 “sævæ quam morbidæ, inter cultores, etiam peritissimos, usq[ue]
 “excepto, principi.”

To our instructors and fellow-labourers, then, under whatever sun they worship truth and the God of truth, be this full cup drained to the bottom ; and as we last year wished that

Dr Spurzheim at his rising was obscured by the mists of prejudice and envy, but in ascending he has looked down upon and dispelled them. His reputation has become brighter and brighter as men have gazed upon and scrutinized his doctrines and his life. No violence and no anguish tarnish the laurels that flourish on his brow. The recollections of his labours are all elevating and ennobling; and in our applause he hears not the voice of a vain adulation, but a feeble overture to a grand strain of admiration, which a grateful posterity will one day sound to his name.

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DR SPURZHEIM proposed the following toast :—**Mr Chairman**—Gentlemen,—We drank the health of the Phrenological Society in general, and, certainly, men of talent and science being united, can do infinitely more than single individuals for the propagation of a science. I also admit that those who came the last, as well as those who were the first, in exerting themselves to forward Phrenology, may have equal merit with respect to the effect of their labours. I even grant, that those who join later may contribute most to the aim of the Society ; yet I beg permission to propose health and prosperity to those who first united and invited others to associate in the investigation of Phrenology. They did so at a time (eight years ago) when moral courage was necessary to declare in favour of our science, assailed from all sides by foes of great influence in public opinion. I propose the health and happiness of the founders of the Phrenological Society,—**Reverend David Welsh**, **Mr George Combe**, **W. S.**, **Dr Andrew Combe**, **Mr Brownlee**, advocate, **Mr William Waddell**, **W. S.**, and **Mr Lindsey Mackersey**, accountant.

The Reverend DAVID WELSH.—**Mr Chairman**—As one of those whose names have been mentioned by **Dr Spurzheim**, I have been unexpectedly called upon to return thanks for the honour which has been done me. The difficulty which I always experience in speaking upon occasions like this is increased by a slight indisposition under which I am at present labouring, and which has been occasioned by the efforts I was obliged to make in order that I might be able to attend this meeting. I do not, however, regret these efforts. I feel myself amply recompensed in having an opportunity of witnessing such a scene. It affords me inexpressible delight to see with mine own eyes that great and gifted man, who, from his extraordinary talents and indefatigable exertions, is to hold so conspicuous a place in the eye of all futurity. Hitherto I have always felt it a reproach

when asked, in regard to this great founder of our science, to be obliged to confess *Virgilium nunquam vidi*; and I feel as if I were discharging a part of the debt of gratitude under which he has placed me, when I bear public testimony in his presence to the pleasure and benefit which Phrenology has afforded me in my own speculations, and still more to the unspeakable advantages I have derived from it in my professional capacity.

As reference has been made to this subject, I think it right to declare, that I have found the greatest benefit from the science as a minister of the Gospel. I have been led to study the evidences of Christianity anew in connexion with Phrenology, and I feel my confidence in the truth of our holy religion increased by this new examination. I have examined the doctrines of our church also one by one in connexion with the truths of our new science, and have found the most wonderful harmony subsisting between them. And, in dealing with my people in the ordinary duties of my calling, the practical benefit I have derived from Phrenology is inestimable.

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Now, Sir, be pleased to attend to the other side of the account. We hear of Phrenology—ay! from the four corners of the earth! Friendly powers—to borrow a lofty style—friendly powers in Europe, Asia, and America, continue their assurances of zealous co-operation! (*a laugh.*) It is whispered to me by a friend at my hand, that Africa is not behind; then, after all, the hemispheres are symmetrical. (*a laugh.*) In no former year have our museums drawn more of a tribute—which I marvel has not been called *Turkish* by our witty opponents—of heads! but heads, as the indices of the varieties of the human race, exposed by us to inform science, not to glut revenge. Not only have distant regions, but distant ages,—even the Greek sarcophagus and the Egyptian catacomb yielded the chief treasure they contain, the human head, to enrich our induction, and extend what an accomplished foreigner, who lately saw our national varieties, with great felicity denominated, “*une géographie morale.*” This year has seen new lectures instituted; new societies formed; a Journal sent forth in

the north; in the another tongue of Tycho-Brahe; the press waxing friendly at home, all over the empire;—nay, the conductor of one of the leading Reviews unwillingly—we know it was unwillingly, and we hope for better times—surrendering a declaration for the cause, *actually in types*,—to what? to the fears of his publisher, founded on the solemn opinion of the family apothecary!*

Prejudice has made a long march this year on its retreat. Never, assuredly, was poor worn-out ridicule so mute, so ashamed of his trumpery magazine of wit, so sick of the jingle of his own bells, that he dare not move his head. *He* is dead, and it is his decease that has been mistaken for Phrenology's. I could name to you, if I might, some "worthy seniors," some "rulers," lately disdaining, hating, and rejecting, who are beginning to look thoughtful, and ask questions, and admit a point or two:

"These things to hear,

"Would Desdemona seriously incline:

"But still the house-affairs would call her thence;

"Which ever as she could with haste despatch,

"She'd come again, and with a greedy ear

"Devour up the discourse——

"Whereof by parcels she had something heard,

"But not intently——

"'Tis strange, she swears, in faith, 'tis passing strange.

.

"There's *something* in their mysteries methinks,

"Though, sooth to say, they carry them too far."

Yes, Sir! even to the bearded Bassanios and Gratianos—not alone to the Desdemonas, the Moor is come less swart. But to how many unjaundiced eyes has not the year unveiled the great truth in all its native attractions,

"Fair as the dawn, and radiant as the day!"

Into how many youthful minds, harnessed to the old *curriculum*, has it not let in a light which will yet compensate time and patrimony, and lighten these future men and their

* This article is now before the public in another Review, No III. of the Foreign Quarterly.

children's children ! This year has seen the finest and largest lecture-theatre in Europe—the London Institution—nobly accorded by its directors, *for the second time*, and crowded to its doors, to “devour up the discourse” of the foremost teacher of Phrenology ; has seen Cambridge, *for the second time*, open to him her academic gates, never again to be reproached—least of all from this end of the island—with opposing the bolts and bars of monachism to the march of mind ; has seen Hull suspend her commerce to listen to truths that will give that commerce a nobler character and a more trustworthy foundation ; has seen here, in fine, attended by listening and admiring crowds—here, where all his former recollections are of abuse and insult—here, actually our guest, the man who first wove the “magic web” from the scattered threads, first raised a philosophical system of exquisite beauty and harmony from the most extensive induction which has yet enriched science, and earned for himself a name among the most exalted of human benefactors. When in full and hostile academical senate—I will not say where—I am not allowed to say by whom,—an inaugural treatise challenged public disputation on a phrenological analysis of hypochondria,—that mysterious influence which, baffling medicine, strikes, without a cause to human eye, the happy with “severest woe,” and visits the mansions of peace, and confidence, and joy, with tears, and horrors, and suspicions, and suicides,—the author manfully fought under the banner of our illustrious guest, and inscribed on his title-page, a legend to his genius and virtue, as without a rival in the investigation of the nerves and brain, and the father of a new and better medicine in that vital field. “Necnon”—thus runs the concise Latinity—“Necnon Phrenologiæ, fundatissimæ et nunquam perituræ philosophiæ mentis, tam æmule quam morbidæ, inter cultores, etiam peritissimos, uno excepto, principi.”

To our instructors and fellow-labourers, then, under whatever sun they worship truth and the God of truth, be this full cup drained to the bottom ; and as we last year wished that

every time we meet, we should feel that the sentiment had depended in its application, let us rejoice that this year our wish has been so satisfactorily gratified; and with no abatement of zeal for the present, and hope for the future, let us drink again to the *Cause of Phrenology over the world*. (Great applause.)

Mr BRIDGES then rose and said, that the toast which he was about to propose was one which required no pleading in its favour. It recommended itself at once to the respect and good-will of every member of the Society,—"The President and Office-bearers of the Phrenological Society."—He knew too well the rule established in that body, of availing mutual compliment, to deviate from it on the present occasion, or to offend the delicacy of the excellent individuals alluded to, and now present, by any lengthened praise. They, indeed, needed not this, for their merits were generally known and admitted. Their President in particular, Dr ANDREW COMBE, a gentleman whose profound and varied talent, and whose vigorous opposition to prevailing medical ignorance on our subject of study, were equalled only by his modesty and freedom from all pretence, and Mr WILLIAM SCOTT, their late President, and now re-elected Secretary, who has brought all the stores of an acute, comprehensive, and accomplished mind to the discovery and illustration of phrenological doctrines, were by all acknowledged as the worthy successors of the well-known individuals who had preceded them. They, therefore, not needing praise, and the speaker feeling himself unable to do justice to their merits, he would rather deviate from the proper subject of his toast, and make an addition of a curious and very interesting kind to the information given by Mr Simpson of the progress of their science over the globe. That gentleman had spoken of the establishment of institutions for its cultivation in America; and the company, no doubt, would figure to themselves the Phrenologists of New York, and Philadelphia, and Lexington, as here meant. But Mr Bridges had now, upon the authority of

a friend as private in Edinburgh, and recently returned from a very extensive tour in the United States, to say, that in the course of his travels, after passing the Alleghany mountains, and after penetrating through some hundreds of miles of deep forests, whose seclusion had scarce been, till of late years, disturbed in all probability since the Flood; that gentleman came, in the state of Ohio, and in the very depth and centre of this great continent, suddenly upon a village, which presented all the peculiarities of a back-wood settlement, with its log-houses and surrounding patches of corn-land and garden. Alighting at the village inn, and laying, according to homely republican fashion, his saddle-bags on his shoulders, our friend was proceeding into this place of entertainment for man and beast, (in America, as well as here, the favourite ensign of tavern-hospitality), when his attention was arrested by a paper stuck up on the door, to the following effect:—
 “The Phrenological Society (*a laugh*) will meet at the “Washington’s Head on Thursday night at eight precisely.” (*Laughter.*) Alas, how is it to be regretted that our friend’s information went no farther! that he had not assisted at the sittings of this institution! Proud as we are of our Dr Combe and Mr Scott, should not any of us have been delighted at this Chillicothe, or Kaskaskia, or Oswego, or whatever was its name, to have partaken with our brother Phrenologists, the Kikapoo, or Chikasaws, or Chaktaws of the place, in their investigation! But, seriously, is it not gratifying thus to witness the progress of phrenological truth wheresoever the big head of Britain is found making its way among the lesser brains, whether of America or of India? And may we not justly expect that the people of America, untrammelled by systems, and uncompromised regarding great names, and free from antiquated academical restraints, shall speedily be found embracing this department of science as invaluable truth, and teaching it to their children, and enlarging and establishing its triumphs?

Before sitting down, Mr Bridges, reverting to another fact of a very opposite kind, mentioned by the last speaker, (Dr

Spurzheim's lectures in London last spring), begged to say, that he had had the good fortune to be present at the opening lecture at the London Institution, and though the place, which is a most elegant one, is calculated to contain between seven and eight hundred persons, and though he went into the room close upon the opening hour, he had great difficulty in finding a seat; and he referred to Dr Spurzheim whether this large audience was not most exemplary in its attention to the lecture! (Dr S. agreed.) All these things should make us prosecute with new vigour the study here, which everywhere seemed to be gaining so much ground; and though our President and Office-bearers might not equal the most choice of the Red Indians, and certainly could never be compared to these when decked in their crown of feathers and tarnished European uniforms,—not to say any thing of the elegant variety of tattooament,—still they were deserving of every honour that we could confer; and therefore again, he said, let us drink to their welfare and success.

Dr A. COMBS replied as follows:—Up to this moment, Gentlemen, I have been quietly congratulating myself on my expected escape from the honour of being obliged to address you this evening; but now, thanks to the well-meant kindness of Mr Bridges, and to the obstinacy of my friend the Vice-President, in refusing to supply my place, I find that honour suddenly thrust upon me in a way that can no longer be declined; and therefore, little qualified as I am for the duty, I, your unworthy President, present myself before you as the representative of the Office-bearers of the Society, to request your acceptance of our united and most cordial thanks.

If any thing can alleviate the infliction thus put upon me by Mr Bridges, it is the sincere pleasure which I feel in repeating here what I have often stated both in public and in private, that to our distinguished guest I hold myself indebted for all that I have been able to do for Phrenology, and for a great deal more than I shall ever be able to express. With his instructions and to his friendship I am indebted for

the soundest, most valuable, and most important parts of my physiological and professional knowledge, and for much of the happiness which I have enjoyed, and much of what success I have met with in life. Strictly speaking, I am not an Edinburgh, but a Parisian Phrenologist ; for it was in Paris, under Dr Spurzheim, that I first studied our favourite science, and first investigated its proofs ; and it was there that, after long experience, a conviction of its truth gradually broke in upon my mind. It was in Paris that I first saw the structure of the brain unfolded by that masterly hand ; and it was in the wards of a Parisian asylum that I first perceived the immense advantages which medical science was likely to derive from the discovery and application of Phrenology to what are called diseases of the mind ; and I may add, that it was not unfrequently the very facts pointed out in the valuable clinical lectures of the celebrated physician to that institution, as militating against Phrenology, that furnished to my mind some of its most striking and practically-valuable evidences.

Much has been already said expressive of the obligations we all owe to Dr Spurzheim ; but much more might with justice be added. In practical medicine, as well as in anatomy and in physiology, Dr Spurzheim has, years ago, anticipated doctrines which later writers have advocated with credit and reputation. To enter upon these is, however, as much beyond my powers, as it would perhaps be out of place ; but the day *will* come, when the prejudices and interests of cotemporary writers shall have passed away, and justice be done *to* all and *upon* all ; and, if it is painful to some of our best feelings to witness the momentary influence of far inferior minds in misleading the public, and in imposing the dense cloud of their own ignorance as the only medium through which light is to be obtained, it is, on the other hand, a source of the purest gratification and delight to live in friendship and in knowledge with the men whose minds will give an impress to the age, and to witness the omnipotence of truth in surmounting all obstacles, and in laying a solid foundation for the lasting prosperity of the race.

The CHAIRMAN gave, "The Phrenological Societies at Home and Abroad," and adverted to the great advantages of these institutions. They bring together individuals who take an interest in the science, and each forms a focus for collecting casts, skulls, and other evidence on which Phrenology rests. They constitute also corresponding boards, by means of which Phrenologists communicate and obtain information in distant countries. It is a gratifying circumstance, that, in less than eight years since the present Society was founded, similar institutions had sprung up in Continental Europe, Asia, and America. The London Society, under Dr Elliotson and Mr Wheatston, proceeds in cultivating and diffusing knowledge of the science; and it already has a rival in zeal, activity, and talent, in the Society at Hull,—the latest that has been added to the list. Dr Alderson, Mr Levison, and their associates, demand our particular respect; Dr A., the president of the Society, is the senior physician in Hull, and forms an honourable exception to the general remark, that no medical man above forty years of age embraces a new doctrine. He is ably supported by Mr Levison as secretary; and the communications, in the Phrenological Journal, from these and other members of the Society, show that Phrenology is there prosecuted with a degree of talent and intelligence that promises the best results. The Dundee Mechanics' Society also is proceeding with a success which is the more gratifying, that it proves Phrenology to be *felt* by all ranks as *the true science of man*.

Mr LYON.—We are met here this evening to discharge, or to attempt to discharge, many and weighty debts of gratitude. You, Sir, have ably assisted to discharge some of these,—particularly that due to our illustrious visitor,—but our debts are not yet discharged; and may they never be discharged! our

"Grateful minds

"By owing owe not; but still pay, at once

"Indebted and discharged!"

and I therefore propose to dedicate this cup—“To the Contributors and Donors to Phrenology.”

If we look around us, and survey the present state of society and the world, there is no feature more striking in its modern history than the amazing increase of the intercourse between the remotest parts of the habitable globe. It has been said of our native land by a French writer, that the sun never sets on her flag. Into what regions have our ships not penetrated? Where is the haven or the harbour where they do not float? Is there any people too barbarous or too refined with whom British enterprise has not established an intercourse, which blesses them who give and them who receive? And what is the result? Go to the warehouses of our merchants, and do you wish to see the productions of every land? You will see them there. The sea is whitened with our sails, bearing homeward the richest products of the East and the West, and swelling the still increasing stream of our national wealth. These are but a part of the blessings of navigation. Need I mention in detail the increase of our knowledge in geography, natural history, and the other kindred sciences? “Knowledge is power,” and how limited had been that power, but for the art of navigation! If what was predicted 8000 years ago was declared by Lord Bacon to have received its accomplishment in his age, how much more now, that “many shall run to and fro, and knowledge shall be increased!”

But, rich though we are in the natural and commercial productions of foreign climes,—extensive as is our knowledge of the physical geography of the globe,—we are as yet poor in the most interesting of all its natural products, and lamentably ignorant of its moral and intellectual geography. We have busied ourselves in ransacking the bowels of the earth for worthless metals; no dangers the most appalling can deter our Watertons from increasing our stores of valueless butterflies and useless insects; but our travellers have passed by, unheeded and unknown, the richest treasures,—the materials from which we could have constructed a mental map of

the world. If the proper study of mankind is man,—if even our knowledge of the lower animals is valuable chiefly from the reflective light which it sheds on our own wondrous mental constitution,—what are we to think of our past and present naturalists, who have overlooked the one in their exclusive and engrossing attention to the other? *Sed spero meliora*. We have commenced the building, and we admit that it is only commenced. Our map is as yet broken and disjointed. Many are the *terra incognita* which our phrenological navigators must still explore. We require, however, to undertake no expensive and hazardous voyages of discovery. At every port, on every shore, lie neglected, because unknown, our intellectual treasures. Our imports are commercially valueless,—intellectually beyond value,—but just in proportion to their value to us is our gratitude due to those who have regarded man as the most interesting of all subjects of inquiry, and who have enabled us, though at the distance of many thousand miles, to investigate for ourselves the moral and intellectual character of many a race and people of whom, but for their benefactions, we might have been almost, if not altogether, ignorant. I pretend not to specify in detail the names of our numerous benefactors.—Let us dedicate the first part of our cup—“To the Donors to Phrenology.”

The contributors to our science deserve a still higher claim to our gratitude. The former have contributed the materials from which the latter have raised the now goodly phrenological structure. Though the materials of our building are rich and valuable, they are but materials still; they are the yet disjointed and scattered base, and shaft, and capital, and entablature, which require the higher skill and science of the master-builder to combine and to rear till they stand forth in all the grace and beauty of the finished colosseum. And we are proud to say, that many such we number among our ranks. Give us the materials, and we will find the workmen. Let our navigators explore, and our geo-

graphers are ready with their intellectual compasses to carry forward, and to complete our phrenological maps and globes. But here, Sir, I will be brief. This meeting do not require to be told of the talent which has enriched, or of the genius which has adorned, the first of human sciences. We meet not here to proclaim our own doings. The time will come when a wider circle will do tardy justice to the talent and the genius which have as yet been appreciated only by ourselves. I mention but one writer, and, as I wish to avoid comparisons, I rest his claim to our thanks on this,—though there are many other grounds,—that he was the first among us who, having a philosophical character at stake, did not hesitate to peril it at the shrine of Phrenology, but, with all the manliness of his character, came forth as the fearless defender of a science which was then the subject of the unmingled scorn and derision of these literary despots,—“Sir George S. Mackenzie, and the Contributors and Donors to Phrenology.”

SIR GEORGE S. MACKENZIE returned thanks.—Gentlemen, said he, did my faculties permit me, I should acknowledge the compliment you have paid to me in a proper manner. As it is, though I cannot express myself, I can feel your kindness. One thing, however, I can say, that I am more gratified by praise here than I should be anywhere else, because I know that Phrenologists cannot be insincere. Whatever exertions it may be at any time in my power to make in the cause of a science so delightful, because so true, will be cheerfully made. As to the past, I am proud to see so excellent a museum reared on the slender foundation which I furnished; and I hope we may soon be able to give it better accommodation. Accept my best thanks.

M^r RITCHIE said,—I am permitted, Sir, to propose a toast in which all classes of men are interested, and Phrenologists not less,—I would say considerably more,—than any other. Without general knowledge, it is impossible duly to appreci-

ate Phrenology; and it is no less manifest that, without such knowledge, no Phrenologist can do justice to his own science. If we professed belief in Phrenology merely because it had excited curiosity, enabled us to amuse others, or, in some way or other gratified, by flattering our Self-esteem or Love of Approbation, what reliance could be placed on our perseverance or consistency? Should we not fly off the moment that the gloss of novelty disappeared, or as soon, at least, as our vanity, our pride, or our interest, should seem affected by an avowal of the new doctrines? Such converts are always dangerous; and there is more safety—more honour—in having to rank them as enemies than friends. But if we embrace Phrenology because we perceive it to be true, and if to Conscientiousness—which alone has the power of rendering truth obligatory, and which *of itself* would constrain us to receive all truth on the same footing—we can superadd general and extensive knowledge, we shall then not only adhere to the cause, but, from tracing the relations of one science to another, and the dependency of all upon truth, be able to give a reason for the faith that is in us,—to satisfy others of the relative value of the science which we advocate. No Phrenologist of this description, however, will talk lightly of other branches of knowledge. Knowing how necessary it is, for the reception of new truths, to conciliate regard, he will be forward to allow—to proclaim—the merit of others. He will admit that the political economist, who discovers or ably expounds the doctrines of rent and population,—the principles which regulate wages, profits, value—is a benefactor of his species. He will grant that the ethical philosopher, who reconciles, identifies, the interests of rulers and the ruled,—who shows that justice and right are the only sure foundations of political authority,—is one who labours also in a useful vocation. Nor will he hesitate in conceding merit to the metaphysicians—although they had done nothing more than call our attention to the wonderful contrast between the almost endless variety of our feelings and the singleness of consciousness, which compels us to refer all our perceptions,

thoughts, and emotions,—no matter from what source they spring, or by what avenues they reach us,—which compels us, I say, to refer the whole of them to *one mental Being*. How, indeed, could I think of depreciating metaphysical talent, after having sat during the evening at the elbow of our friend Mr Welsh, who has just been *stereotyping* a third edition of the Lectures of Dr Thomas Brown? It is not necessary, therefore, to go to the practical arts, or what are called the pure sciences, to be satisfied that much good has been—that much might still be—accomplished without Phrenology. And the more frankly we admit all this, the more likely are we to get others to look impartially at the subject of our favourite study,—to convince them that Phrenology is a science of observation and classification of the very first importance; and that, when fully understood, it will enable society to cultivate all other arts, all other sciences, every other department of knowledge, to infinitely greater advantage,—to give an incalculably more certain and *available direction* to all human power and exertion.

It is very true, that, speaking generally, we might say of society at present, that they neither have integrity enough to feel the importance of knowledge, nor knowledge enough to perceive the value of integrity. But this affords no reason why we should despair. It is almost a self-evident proposition, that the more we employ our time in acquiring knowledge, the less we shall have to bestow upon low and grovelling pursuits; and that, from the very nature of occupation and habit, we shall be the less disposed to commit wrong. There is thus an inseparable connexion between the progress of knowledge and the advancement of morals. And, for the progress of the former, is there not ample provision made in our very nature? The knowing faculties (the intellectual powers of man) must and will be active. They will have information; for exercise not only relieves them from pain, but procures gratification; and, happily, every one of their well-directed and successful efforts is re-

warded—and *immediately rewarded*—with the most delightful emotions. This is a wonderful, a wise, and a most beneficent arrangement of Providence. What pleasures are so pure, so exquisite, so exalting, as those of the intellect,—as those which arise on tracing new relations,—on discovering new truths,—new means of benefiting our kind,—new proofs of design and goodness on the part of the Great Author of the universe? And with such rewards awaiting him at every step,—with such prizes constantly in his view,—and of which no tyranny, no change or reverse of fortune, can deprive him,—shall man pause in his search after truth,—in his pursuit of knowledge? The thing is impossible. And is it not, in one sense, consolatory, even now, to reflect that there is hardly any one so ignorant as not to have spent more time, and expended more labour, in imbibing prejudices,—in treasuring up erroneous opinions,—than would have sufficed to acquire all the important truths hitherto known, but which may be said to be as yet locked up in the heads of a few studious individuals? Much is known; but the knowledge that exists is isolated. The economist is not always a moral philosopher, the philosopher seldom a practical statesman, and few statesmen are philanthropists, metaphysicians, or Phrenologists. Yet, if all that is known were systematized, and generally taught, what a change would speedily be operated on the face of society! But this change, and a greater, will yet come. We should never forget what has been profoundly observed by Dugald Stewart, that those very conditions of our nature which at present lead us to prejudice,—the Self-esteem, which resists novelty,—the Love of Approbation which dreads the avowal of what has not yet received the popular sanction,—will—when truth is once acknowledged—all go to ensure its permanence and authority. Let us also remember what Dr Thomas Brown has so happily told us,—and which is more consolatory than all the rest,—that, while Error is temporary, Truth is eternal! From considerations like these, one may feel assured that, however lower-

ing; or ~~down~~ may be the clouds which at present occupy the atmosphere of mind, the time will come when, from knowledge being almost universally diffused, and truth being comparatively omnipotent, the faculties of man shall be rewarded by the bursting forth upon them of the full glories of the intellectual firmament.

If, Sir, the meeting have at all sympathized with me in the views which I have now opened up imperfectly, but which cannot be prosecuted farther at present, they will receive favourably the toast which I am now to propose, namely,—“The Progress and Diffusion of Knowledge;” or, in other words, “The Ascendency of Truth all over the World.”

The VICE-PRESIDENT, in asking indulgence for another bumper, said,—It is to a softer strain I would wish now to attune your feelings,—and I could wish, for this toast’s sake, that every cup overflowed

“With thrice-repeated nectar apt and true,”

and that punch and port, like space and time, were for the moment annihilated.

My subject has one advantage—it is a toast *proper* and *literal*; and that on Dr Johnson’s authority. He defines the word, “a celebrated woman, whose health is often drunk.” And assuredly to be the *better* half of Dr Spurzheim is no slight claim to celebrity.—(*Loud and general applause.*) We were aware before that that lady is an accomplished Phrenologist; and that, moreover, her pencil has furnished those instructive illustrations of Dr Spurzheim’s lectures which we have all admired. Many of us have now had the happiness to make her personal acquaintance; and the impression is the consequence, that her lady-like manners and social qualities yield no point to her philosophical accomplishments. But I have not *her* permission to dwell on this theme,—I have not her

husband's. I will save the feelings of both, and easily qualify the pre-eminence in which I have used the liberty to place her, and that in a way which she, were she present, would be the foremost to approve. I will encircle her with a sisterhood of Phrenologists (*applause*), and conjure up a group—a zealous, unprejudiced group—of which she shall be the central figure.

Of crowds in London, and in Edinburgh, I have seen more than one-half female auditors—breathless listeners to truths destined—and not least in female hands—to meliorate incalculably the condition of man. It was to be regaled with a high moral feast—to see these, the real sovereigns of society, whose power is absolute in life's threshold—whose influence endures till life's close—one of whom, in this spring-tide of truth, can do more for the harvest of the next generation than an hundred proud, hesitating men, who lose in strength of prejudice all their vantage-ground of strength of mind;—to see women drinking deep of that well-spring, from which the members would yet banish their footsteps—to see her receiving into her undoubting grateful bosom the tidings of that second revelation—handmaid to the first—destined to extend its empire and enhance its blessings. Sir, I know not a more interesting spectacle.

But we are not constrained to speak only of the future. The good work is begun. Mothers are managing with ease a moral engine, by the side of which all the practical fabrics of all the schools shrink into insignificance. Mothers are bending over the cradle of mind, and watching, in their primitive seats, the very germs of powers and principles, which, as directed, work the weal or woe of human life; which *have* been perverted to the effect of rendering human suffering predominant, and history itself a register of crimes—which may be guided to yet uncalculated good. Ay, sir, children are lisping, at a mother's knee, the lessons of true practical self-knowledge, and are made aware of their besetting impulses, and come to confession of the faculties they have abused, and

the restraining powers they have not used in their little delinquencies, while the purest moral delight fills the parents' heart. What will social man not gain by such moral training as this! what will not Christianity itself gain by this, alas! so-much-wanted moral foundation! Such is the field for female culture! Speed the hallowed task! "To teach" "the young *idea* how to shoot" is a tithe of the sacred duty:

"To breathe the enlivening spirit, and to fix
"The generous purpose in the glowing breast."

And for this, to guide the infant impulses to good; impulses which do not form ideas, but instigate blindly to actions; this is the mother's truly delightful behest.

The enemy is pleased to sneer at what he calls the concourse of women to the halls of Phrenology. Let him look to his pre-eminence; this very concourse will shake it to its foundation.

With all the honours, then, let us toast Mrs Spurzheim, and all the matrons, and all the maids, who devote themselves, heart and soul, to the pursuits of Phrenology.

DR SPURZHEIM rose, and said,—

Mr Chairman,—Gentlemen,—As Mrs Spurzheim had the honour to be named, and placed at the head of the females who study Phrenology, I think it incumbent upon me to thank you in her name, and in the name of the other ladies, for your polite attention. There can be no doubt among Phrenologists that the minds of ladies as well as ours should be cultivated, to fit them for their social relations and duties. With respect to Phrenology in particular, I am convinced, that among an equal number of ladies and gentlemen a greater number of the former are fitted to become practical Phrenologists, that is, to become able to distinguish the different forms and sizes of the head in general, and of its parts in particular. The reason seems to be, because girls and women, from the earliest age, exercise the intellectual powers

of Configuration and Size more than boys and men, in their daily occupations.

It is not necessary for me to speak of the great influence that mothers have on the education of their children, because several of you have already done justice to them. It is also evident that ladies may greatly contribute to the diffusion of Phrenology in society, and may make frequent use of it in practical life. But if ladies do render service to Phrenology, this science will also be of great advantage to them; and I may say, of the greatest advantage after Christianity. You know that the fate of women is very unfortunate amongst savage and barbarous tribes; you must also acknowledge that their condition was very hard in the Jewish dispensation, since every man was permitted to give a bill of divorce to his wife, if it was his good pleasure to dismiss her, whilst Christianity re-established the law as it was "*from the beginning of the creation.*" Phrenology teaches us to appreciate women as well as men according to their personal merit of talent and virtue. I shall allude only to one point. You may daily observe, that boys resemble rather their mother than their father in mental dispositions; and it is known that great men generally descend from intelligent mothers. More might be said, but let this be sufficient, and let us encourage ladies as well as gentlemen to study Phrenology.

Before I sit down, gentlemen, I beg to be allowed to crave a toast, and I beg you to fill the glasses.

Mr Chairman,—Gentlemen,—Phrenology exists, and there are Phrenological Societies, in various parts of the world. We wish them success; we acknowledge the advantage of opposition, and we drink the health of our opponents; we also wish for the progress of knowledge in general. It, however, seems to me that there remains still an important point to wish for with respect to Phrenology. Not every one has leisure or inclination to be his own teacher; the greater number of persons prefer to be taught by others; hence I propose the health and prosperity of those who teach Phrenology.

Yet I beg leave to add, that I wish all teachers of Phrenology may be wise, prudent, and harmless, and turn Phrenology to the general welfare of mankind, since all knowledge, void of that tendency and effect, is vain. Thus, gentlemen, I propose the health and prosperity of all Teachers of true Phrenology. (*Much applause.*)

Mr Scott stated, that a task had been imposed upon him which he found rather a hard one. It had devolved on him to propose a toast which he feared would prove less gratifying to the feelings of his auditors than many which had preceded it,—“The health,” namely, “of the Opponents of Phrenology.” Mr S. observed, that, on the present occasion, he called to mind a saying of one of Shakespeare’s clowns, who, on being asked by some one—How he did? answered, “*The better for my foes, and the worse for my friends.*”—And the reason assigned for this was, that his friends often spoiled him with their praises and flattery, whereas his foes told him all his faults, and set him upon discovering and correcting them. “By my foes,” says he, “I profit in respect to self-knowledge, and by my friends I am abused. Therefore, if your four negatives make your two affirmatives, the worse for my friends and the better for my foes.”

We may perhaps say of this party-coloured philosopher what he elsewhere said of himself, that “he were not motley in his brain.” All of us may have occasionally experienced the evil arising from the too great partiality of our friends in their praising us for that which is not praiseworthy, or praising us beyond the bounds of our desert, and thereby inducing us to think more highly of ourselves than we ought. But, without laying more stress on this than necessary, and admitting to the full the great advantage of having good friends, we may, at least, go thus far, that the next best thing to having a good friend is the having a good opponent. I do not mean by a good opponent one who deals gently with

us, who gives soft blows, and plays booty, but a stout and stalwart adversary,—one who can give and take, and who desires, as we do, nothing better than a clear field and no favour. To such an opponent we can have no objection, and, as Phrenologists, instead of having to complain of too many opponents, the complaint rather has been, that we have not had opponents enough.

I am rather inclined to think, that opposition generally is a good thing, and is the means of producing good in every case where it is duly applied. It stirs up the languid faculties, and rouses them to exertions which they would not otherwise make. No science, art, invention, or discovery of any kind, has ever been perfected without first running the gauntlet of a hot and determined opposition. I am almost inclined to think, that nothing good is ever attained without it, at least some of the greatest benefits which have been conferred on the human race have flowed from this source. Whence, it may be said, originated the Reformation? In opposition. To what do we owe the blessings that have flowed from the Revolution of 1688? To opposition. To what is it owing that we still continue to enjoy these blessings? In a great measure, certainly, to opposition. So much is this the case as to be now generally allowed, that the English government consists of two great classes of functionaries,—his Majesty's ministers and his Majesty's opposition. If, then, opposition be so necessary and so useful in every thing else, why not in philosophical investigation?—why not in Phrenology? The greatest philosophers, and even Phrenologists themselves, are but men, and, like all their fellow-mortals, are "liable to err, even when they think themselves most secure from error." Is it not desirable, then, that, even they, in pursuing investigations of so novel and seductive a kind as Phrenology is acknowledged to be, should not be allowed, on all occasions, to run as fast as their own excited minds would incline them, but should occasionally be checked in their career, and induced to pause and

consider well the ground they have passed in their flight, by the efforts of a wholesome and well-directed opposition?

I have said, we have rather to complain of a paucity of foes. Enemies and evil-wishers we have had in abundance; but, in this part of the world at least, we have had rather a scarcity of open opponents. Two, however, there are, to whom we cannot deny the praise of courage, at least, and, in the main, of fairness,—whatever we may think of the strength of their weapons, or the judgment with which they have directed their attacks. No one, for instance, can deny that Mr Jeffrey is a fair opponent, and no one acquainted with his name will regard him as a foeman unworthy of our steel. None of us can have forgotten the circumstances of his memorable attack,—the dreadful note of preparation that preceded it,—the trumpet that gave the signal,—the shock of the encounter,—the meeting of the combatants, like that of two thunder-clouds,—the clash of arms, horrid but brief,—or the signal catastrophe with which the affray was terminated. We had hardly time to rub our eyes, and look about for the champion who had but a few seconds before entered the lists in all the panoply of war, when we found that, like one of Homer's heroes, he had disappeared from the field. Juno had interposed her shield, and Venus had conveyed him from the conflict in a golden cloud.

One other redoubted champion remains. Mr Jeffrey attacked us with the airy weapons of inference, of reasoning, and of wit; but Sir William Hamilton, after having followed the same course in vain, now professes to take his stand on the stubborn ground of facts, and maintains the falsity of our science in no fewer than fourteen distinct substantive propositions. As Phrenology is considered to be bottomed on facts, it is precisely on this particular ground where she may be expected to be strongest. If Sir William Hamilton can prove that those who have hitherto examined Nature have erred in their examination, and shall point out a method of conducting their inquisition into her secrets more

short or infallible than that which they have followed,—if he shall either disprove their facts, or prove others which have escaped their penetration, he will, in either case, be a benefactor to the science of the first order, and it would be most ungrateful in us not to acknowledge the obligation.—Mr Jeffrey's attack on the ground of argument, proving, as it did, utterly inefficacious, was of the most essential service to the cause ;—as if an assailant of his power and acuteness met with so signal a discomfiture, it no doubt increased the confidence which might be entertained in the soundness of those principles which he was unable to overthrow ;—and, as far as facts go before argument, I feel inclined to hope, that Sir William Hamilton, by the investigation he has now provoked, will prove himself to be infinitely the greatest benefactor Phrenology has had ; and that those few points in it which still admit of dispute will, by his means, be now thoroughly and for ever settled. As, then, it appears that we are, or have been, so much beholden to our foes, surely the company cannot object to drink, in an overflowing bumper,—*The Opponents of Phrenology*, with three times three, and all the honours we are able to bestow. (*Great cheers.*)

Dr ROBERT HAMILTON said,—Mr Chairman, I have craved a toast, and I do so the more willingly when I compare the one you have just drank with that one which it devolves on me now to give.

I hold, Sir, there is something truly interesting,—there is something, to the higher principles of our nature, truly delightful,—there is, on the whole, something altogether admirable in *that cause*, whatever it may be, that can induce a man to *love his foes*. We, Sir, as Phrenologists, have had and still have foes ; although those who first entered upon the inquiry have undoubtedly most experienced their hostility. How many are the weapons they have used against us ! High, silent, proud contempt,—the supercilious smile,—the cutting sarcasm,—and the noisy, senseless, but to them triumphant laugh. And how often have they ransacked our vocabula-

ries for opprobrious epithets with which to overwhelm us! —Incurably stupid! profoundly ignorant! blind enthusiasts! unprincipled quacks! wicked impostors! —And what is the return that Phrenology has taught us, as now, to make to them? Does it not put us in mind of another, a higher and nobler, and at the same time a simpler morality, which has taught us not to return evil for evil, but, contrariwise, to love our enemies, to do good to them that hate us? Where the *effects* produced, Sir, are so similar, does it not lead us to infer, that the principle and source from which they spring are closely allied? I for one have long thought so; and I trust that all who are now present are of the same mind.

You, Sir, have just expressed your kind wishes for the opponents of Phrenology; and boldly, then, may I claim your regard for many who are now manifesting themselves as its warmest friends,—I propose “THE VISITORS WHO ARE AMONGST US.”

After what has already been said, I will not say a single word of him who is, *par excellence*, our *illustrious* visitor.

I rejoice, Sir, to see amongst us so many of our *ordinary non-resident* members;—gentlemen whose lots are cast at a distance from our metropolis, but who are not on that account estranged from our science;—men who, in their several spheres, can prosecute and promote the cause in which we are together embarked;—and whether they may be wandering in the plains of Italy,* or residing amongst the hills of Ross-shire, can think of our interests, and advance those objects we have so much at heart. Several of these gentlemen have put themselves to considerable personal inconvenience, that they might be amongst us on this happy occasion; and, in return for such zeal, we can only express our earnest desire that these gentlemen may enjoy a share

* Allusion is here made to Mr Hallyburton, who, when at Rome, having procured some valuable antique busts, presented copies of them to the Phrenological Society.

of that delight which their presence, and influence, and support, confer on us.

I rejoice, Sir, to see amongst us so many of our *corresponding and foreign members*, who, although they may not have come from far to attend our meeting, have yet lingered amongst us that they might share and increase our joy.

There is yet another class, which I may designate as *delegates* from our sister-societies. We have already had the pleasure of greeting one gentleman (Mr Welsh) from Glasgow, where there is an embryo society; and may we not indulge the hope, that it may be his happy lot to resuscitate and invigorate *that* society, as well as be the founder of our own? In looking round, I cannot speak with confidence; but I know it was the intention of some intelligent members of the Kilmarnock Phrenological Society to be amongst us on this occasion, if not prevented by the pressing calls of business. And I may say the same of others from the Mechanics' Phrenological Society of Dundee,—a society which of a sudden sprung up amongst us, in an unexpected soil, which early manifested vigour, and which is thriving to a wish. In the most judicious manner, it is possessing itself of the requisite works and casts; and to those not previously aware of it, it may be interesting to learn, that they are busy in making observations from nature, and that lectures are about to be delivered by some of the more intelligent and advanced members. The good fruit of such active labour will, we trust, be soon conspicuous.

For the social company and the cordial support of such friends as these, I am sure, Mr Chairman, we should be grateful; and our only regret will be, that we cannot, in a more practical manner, manifest our regard. We would give more even than *our best thanks*; and something perhaps may be done in this way. I see around me gentlemen who, I know, will shortly be in other countries and in another hemisphere; will they, then, accept and take along with them—*our best wishes*?—will they allow us to say, our kind-

liest regards will follow them?—we would wish them all success in the more extensive knowledge of our science, and in the cultivation of those rich fields of investigation whither their steps may be directed. We shall be ever happy to hear of their discoveries and prosperity, and be ever ready to communicate our own. But I must not detain you longer, and no more words are required to ensure your support to the toast,—**THE VISITORS THAT ARE AMONGST US; best thanks for their presence, and best wishes in their absence.**

The Hon. D. G. HALLYBURTON spoke to the following effect:—I hope, Sir, it will not be deemed improper in me, —I trust, at least, that I shall be forgiven,—for stating to you, and to the gentlemen present, that, since I entered this house, and just before we came up to dinner, our worthy Vice-President asked me to offer a toast to your notice, which, in the previous arrangements, had been destined to other and abler hands, to a gentleman whose necessary absence from our meeting this day, I am sure, we all sincerely regret. I confess, Sir, that, when I saw what the toast in question was, I hesitated to undertake it, feeling that it would demand more eloquence, and a little more previous meditation, than I could bring to its introduction. However, Sir, being encouraged by my learned and eloquent friend, I resolved to throw myself upon your candour, and to offer violence to my *Cautiousness* and *Love of Approbation*, trusting that you will not deem me consequently to be possessed of a more than ordinary portion of *Self-esteem*. But, Sir, what I cannot adequately do myself, the names of Bacon, of Milton, and Newton, shall do for me. Let these names be uttered in any part of the world, (in any part surely of the civilized world), and you will not be asked where they were born, or where educated. Men's thoughts will turn spontaneously to the groves of Granta and to the banks of the Cam. Sir, I am, like yourself, a Scotsman, and I am proud of the appellation; like most of those gentlemen who now hear me, I received

my early education at Scotch schools and Scotch colleges; but we must not, any of us, be insensible or unjust to the glories of England, now our sister, once our foe. I confess I have sometimes felt hurt at hearing the universities of England, even her eastern university, more slightly spoken of than seemed quite consistent with decorum or with truth. —Relics of Monachism, quadrangular edifices, and black caps cut after the same pattern,—seven o'clock in the morning prayers, with frozen fingers, and piety likely to be frozen too. —These are some of the epithets I allude to. True, Sir, Cambridge was once monastic, but the spirit of the Reformation arose, and chased away the nuisance; and could some of her worthy sons in later times have prevailed, other dregs of Popery, doctrinal and practical, would long since have followed the monks, returning whence they originated. Cambridge was once altogether scholastic, full of syllogisms and of reasonings by the rule, line, and plummet, as Aristotle could make her; but Bacon arose from within her bosom, looked abroad on the ways of men and of nature, restored—rather gave—to science its dignity and its direction, overturned the despotism of Aristotle, traced with a master-hand the demarcations of human knowledge, and the roads by which those regions might be penetrated, and left it a question, not yet decided, whether his wisdom or his eloquence were the greater.

Bacon, like Columbus, led the way to new worlds and new continents, and bequeathed it to posterity to conquer and to cultivate them; but *his* triumphs were to be those of chastened vigour, of patient yet hardy investigation, and of unconquerable truth.

This sun of science had scarcely set, when Cambridge, ever, as it appears, up to the exigencies of the moment, produced her Milton. Milton, emphatically the poet of virtue, of liberty, and of religion,—the flagellator of intolerant priests and tyrant kings,—England's Latin secretary during the Commonwealth,—the defender of her people, and of her

people's rights,—and (that his *Destructiveness* might find vent in a wholesome and salutary direction) the executioner of the hired Salmasius. The troubles of those times being quieted a little, and Cambridge having furnished to England her champion in the contest, was soon to send forth a champion cast in a different mould, whom to name will be sufficient, for I know not who is worthy to describe him,—the Proteus of Philosophers (*vrai Protée des Philosophes*),—as I know he was designated in conversation by the greatest mathematician and astronomer of modern Europe, lately deceased; in a word—Newton,—the most sagacious, the most patient, the most persevering, and the most modest of mortal men.

“In his dispute with Leibnitz, (I shall quote the sense, and I think nearly the exact words of Newton's biographer,) he ever showed a great meekness of disposition; however, he was very far from being insensible both of the injurious presumption and mean chicanery of his envious competitor, and undoubtedly took the best method of foiling him, by refusing any longer to feed his vanity with a verbal contest, but subduing his insolence with inflexible facts.”—Our illustrious guest may perhaps judge this conduct of Newton not unworthy of his imitation, in parallel cases. Now, Sir, I would ask, Is it credible—is it, on phrenological principles, possible, that the nursing mother of so many heroes (all of them, in their day, innovators and reformers in their several departments), should ever cease to be liberal? I say that, until degeneracy shall overspread the whole land, this is impossible. Cambridge felt strong in the might of her sons, the living and the dead; she needed not to skulk under antique rules, or *ex post facto* regulations; she believed Dr Spurzheim to be a true philosopher, and, as such, invited him within her walls. She found him to be one *multi secundus*, although, as we have heard this evening from his own lips, he is ever ready to render all due honour, and to give the post of precedence to Dr Gall, the great discoverer of Phrenology.

Cambridge again invited Dr Spurzheim, threw open to

him her gates, engaged him a second time to lecture within her halls, and admitted him to the inmost recesses of her sanctuary. This is the latest, but we trust it is not the last, of the triumphs of that far-famed university. And now, Sir, let us hope, that an instance of academical liberality and academical wisdom, worthy of originating with Cambridge, may not be deemed an unfit example for other places,—that what has been done by the *monastic, scholastic*, (or by whatever other nickname they think fit sometimes to designate the place), may, in due time, appear nowise disparaging to the dignity of reformed, anti-catholic, and anti-scholastic Scotland. We have all heard, that, on a recent occasion, an university, not an hundred miles distant from where we are sitting, did refuse a slight accommodation when the subject of Phrenology was sought to be discussed. If there were indeed any old senatorial decrees against such an indulgence, it is a pity that, like certain old Scotch acts of parliament, they were not allowed to fall into *desuetude*. The learned professors, had they inquired, would not have found, that the statues of Bacon, Milton, Newton, &c., at Cambridge, had leapt from their pedestals when Dr Spurzheim lectured in their presence, or that the living philosophers of that place had deemed it beneath their dignity to listen to his demonstrations. I have indeed been unable to imagine what just cause of offence could have been given to any thing within the walls of the Scottish university, unless it might have been to the fifty stray skulls from Paris, which, by some means or other, had wandered to the museum there: upon them, indeed, (their history and their qualities), Phrenology might have thrown some inconvenient lights, undetected by the doctors, to whose safe keeping they had been misdirected. I have touched upon this topic, Sir, but will not prosecute it; and I conclude by begging that a bumper may be filled to—"Cambridge and Academical Liberality."

The CHAIRMAN proposed the health of Mr W. A. F.

Browne, surgeon, a member of the Society, who on all occasions had displayed much zeal in the cause of Phrenology, and who at the present time had been particularly active and successful in bringing before the medical students of Edinburgh the importance of Phrenology as the doctrine of the functions of the brain, and inducing them to solicit from Dr Spurzheim a course of lectures for their instruction on the anatomy, physiology, and pathology of that organ. The request had been made and complied with, and upwards of 80 gentlemen, almost all belonging to the medical profession, had entered on that course. It was delightful to perceive the deep interest with which they listened to the prelections of Dr Spurzheim, and the avidity with which they received the knowledge communicated in his inimitable dissections and demonstrations. These lectures would form an epoch in the history of medical education in Edinburgh; their influence would never cease; positive ideas of Phrenology as the physiology of the brain would by them be communicated to so large and intelligent a body of students, that the importance of the study would be recognized by the young men in general who sought diplomas in Edinburgh, and the impression would be transmitted to their successors. It must afford a subject of lasting satisfaction to Mr Browne to have been in any degree instrumental in so great a service.

Mr BROWNE, in returning thanks, disclaimed any individual merit in the requisition alluded to by the Chairman, but solicited for the Members of the Royal Medical Society that applause which he could not appropriate to himself. He stated, that, from the unanimous and enthusiastic manner in which the members signed the requisition, which, as a president, he had taken upon him to circulate among them, he inferred, that, to the high honour of having been chiefly instrumental in exposing and overturning the errors of Boerhave and Brown, the Royal Medical Society would soon add that of establishing the truths first propagated in this coun-

try by Dr Spurzheim. From the spirit of inquiry which characterized the members of the Royal Medical Society, he entertained hopes, that, at no distant period, that institution, besides fulfilling its grand object of sending able physicians to every part of the world, would at the same time send forth Phrenologists conversant with the true physiology of the brain, or, in other words, with the moral and intellectual nature of man. The difference in the present reception which Dr S. had received from the medical world in general, and from the Royal Medical Society in particular, from that which characterized his former visit, must have occurred to every one. This change showed not only how false was the allegation, that all medical men were opposed to the science of Phrenology, but also that, in a certain sense, a *Medical Society* was, if not already become, at least not averse from becoming, a *Phrenological one*, whenever observation and reflection should lead them to the conviction that Phrenology is true.

The evening was spent with great hilarity, and enlivened by several excellent songs. The dinner and wines were furnished in Mr Barry's usual style of taste, elegance, and comfort.

ARTICLE VII.

DR SPURZHEIM'S VISIT TO THE CITY OF EDINBURGH LUNATIC ASYLUM.

On Thursday, 19th February, 1838, Dr. Spurzheim visited the City Lunatic Asylum, and the Hospital for the Children of Paupers, accompanied by Dr Hunter, the surgeon of the establishment, the Honourable Mr Hallyhurton, Dr Combe, and some other gentlemen. A few particulars of this visit may not be unacceptable to the Society.

Dr Hunter, and some of the other gentlemen, who were

not Phrenologists, expected that Dr Spurzheim would be able, from the mere examination of the heads of the patients in the Asylum, to predicate the precise kind of insanity under which they laboured. This, Dr S. stated, was not his object. He could not, *a priori*, determine the nature of the disease, but if informed of it, it would be found that the cerebral organisation connected with the deranged faculties was generally largely developed.

After this explanation, a female patient was pointed out who was insane from jealousy of her husband. Her manifestations were attended with violence and rage. Dr S. pointed out the great size of the lower part of the middle lobe of the brain in the region of *Destructiveness*. This was strikingly apparent. Another woman saw ghosts and spectres. In her the organ of *Wonder* or *Marvellousness* was remarkably developed. Dr S. asked her if she ever complained of a headache; she answered she did; and being requested to put her hand on that part of the head where she felt the pain, she did so on the very spot where the above organ is situated. This individual had also *Cautiousness* considerably developed, and *Wis*, or *Gaiety*, small. Her prevailing feelings were those of a depressing kind; and these she expressed on this occasion.

A female who sat opposite to her was a perfect contrast. She was always smiling, and her feelings were gay and lively, and her development was in precise accordance. In her the organ of *Gaiety* was very large.

In a female idiot, the propensity to destroy was great and incurable. *Destructiveness* was largely developed.

Among the male patients was an individual who had made repeated attempts to destroy himself. Dr S. remarked, that in all such individuals, however the brain might otherwise be developed, it was almost invariably found that the organ of *Hope* was small,—and such it was in this patient.

A young man had become insane from circumstances of a domestic nature, which had wounded his social feelings. He

was asked if he felt pain in any part of his head. He immediately put his hand on the back part of his head, and on the region where Adhesiveness and the domestic feelings are situated.

There were several other cases, which Dr S. stated would have been to him highly interesting if he could have known something of their previous history. Their development was of a very superior order.

The Children's Hospital was next visited. The mistress was requested to bring two or three of the best and worst behaved boys and girls; but without, of course, informing Dr S. of their manifestations. She was also requested to bring some of the cleanest and most orderly, and those whose characters were of an opposite description. The children were then ranged in order, and, without the least difficulty, Dr S. determined at once which were their respective manifestations. The discrimination, however, evinced by Dr S. was still more minute. The mistress had selected three girls as being the best behaved in the Hospital; Dr S. not only fixed upon them as being the best, compared to those with whom they were contrasted, but remarked, that of the three, their mistress would find more difficulty in managing one of them than the other two. This, upon inquiry, was found perfectly correct. Dr S.'s information was drawn from this girl having *Firmness* largely developed.

The curiosity of the children having been excited by this visit and the object of it, they followed the gentlemen as they retired. Dr S., whose affectionate attachment to children is very remarkable, gathered them round him, and took occasion to remark the very great contrast exhibited by the heads of those children whose parents are in general of the very lowest ranks of life, as compared with the heads of the children of the higher classes, and attending such schools as the Circus Place and others. Though here and there was an exception, the heads were in general villanously low,—narrow in the frontal and sincipital regions. Let any one

try; and Dr S., by education, if the mind at birth is a sheet of blank paper, to make Bacons and Newtons of such children.

It is unnecessary to draw any inferences from the phrenological facts pointed out by Dr S. on this occasion. They are not sufficient of themselves to establish the truth of the science, nor are they stated with this view, but they furnish additional evidence to those who have previously observed nature; and they impressed all who witnessed them with the rapidity and correctness evinced by Dr S. in observing different developments of brain.

ARTICLE VII.

PROCEEDINGS OF THE PHRENOLOGICAL SOCIETY, EDINBURGH.

November 15, 1827.—Mr Lyon read a letter from Dr Wright, giving an account of the 16 casts presented by the London Society to the Edinburgh Society. The following donations were presented:—viz. 16 casts by the London Phrenological Society; 1 ditto by the Hull Society, with an account of the individual, by Mr George Combe; Swiss skull, from M. Frederick Meyer, Zurich, sent to Dr A. Combe; tattooed head from Australia, by James Hay, Esq., Leith; one skull and one head of mummy from Thebes, two remarkable skulls from India, by Dr John Scott; cast of the idiot Robert Auld; skull from Kirk Alloway, Ayrshire, by Mr Robert Almalie. Mr Simpson read an essay on physiognomy, by Mr J. L. Levison, a member of the Phrenological Society, Hull. Mr Combe moved, that the best thanks of the Society should be returned to Mr Levison for his interesting communication, and solicit a continuance of them, which was unanimously agreed to. Mr Lyon read

an account of Peter Nielsen; murderer; by Dr Otto, Copenhagen. The thanks of the Society were voted to Dr Otto for this paper.

November 29, 1827.—At a general meeting of the Society, the following gentlemen were unanimously elected office-bearers for the present session:—viz. Dr Andrew Combe, President.—Mr James Simpson, Mr William Waddell, Mr William Ritchie, Mr James Law, Vice-Presidents.—Mr George Combe, Mr M. N. Macdonald, Mr William Bonar, Mr James Tod, Mr George Lyon, Dr R. Hamilton, Councillors,—and Mr William Scott, Secretary.

November 29, 1827.—Ordinary Meeting.—Dr Andrew Combe read an extract from a letter to him, about Dr Gall, from Dr Fossati, Paris. He likewise read an Essay, being an Inquiry into the Mental Condition of several Individuals recently tried at Paris and other Places for Parricide, Murder, and Fire-raising. The Society's thanks were voted to Dr Combe for this essay. The following donations were presented: viz.—

Skull of ourang-outang, by Sir G. S. Mackenzie, Bart.

Discours prononcé le 14. Janvier 1827, à l'ouverture d'un cours de Phrenologie, par C. Fossati, M.D., by the Author.

Three Numbers of the Danish Phrenological Journal, by Dr Otto.

Cast of the skull of *Caystono Arragonis*, a native of Old Spain, presented by the Phrenological Society, Belfast; with an account of him by Mr M'Gee.

Applications for the admission of Mr James Crease, merchant, Edinburgh, and Mr Thomas Urquhart, merchant, Edinburgh, as ordinary members, and for the admission of Dr C. Fossati, Paris, as a corresponding member, were read.

December 13, 1827.—Mr Simpson read an Essay, being Phrenological Observations on the Mottos of Armorial Bearings. The Society's thanks were voted to Mr Simpson. An

Essay from Sir G. S. Mackenzie, Bart., was read, being Phrenological Observations on the Cerebral Development of the Chinese compared with their Mental Character. The best thanks of the Society were directed to be returned to Sir George Mackenzie for this essay. Mr George Combe read a letter from Dr Spurzheim, from Hull, to him, dated 10th December, in which he mentions his intention to be in Edinburgh on the first week of January, to give lectures on Phrenology. This communication was very gratifying to the Society. They resolved to solicit the honour of Dr Spurzheim's company to dine with them, in Barry's Hotel, on the 25th of January, 1828. Mr James Crease and Mr Thomas Urquhart, were unanimously admitted ordinary members, and Dr C. Fossati, Paris, a corresponding member.

January 10, 1828.—Mr William Scott read an Essay on Imitation, by Dr Elliotson of London. The Society's thanks were voted to Dr Elliotson for the very interesting essay sent by him. Mr Combe then read an account of Dr Spurzheim's reception and proceedings at Hull, in December 1827, by Mr J. L. Levison, Secretary to the Society for Phrenological Inquiry there. The Infant Lyra and her father being introduced, Mr Combe read a notice of her by Mr Ritchie. Dr Spurzheim was then introduced to the Society, and received a most warm and hearty welcome. Mr Robert Ainslie, writer, Edinburgh, Mr George Cox, Gorgie Mill, and Mr Andrew Dun, W. S., were admitted as ordinary members.

January 24, 1828.—Mr James Simpson read an Essay, being a Phrenological Analysis of Eloquence. The Society's thanks were voted to Mr Simpson. John Ross Hutchinson, Esq., Bengal Civil Service, was admitted an ordinary member, and the Rev. P. Mejanel of Paris, and Dr Pelechine, St Petersburg, corresponding members.

February 7, 1828.—The Secretary read a letter from Dr Charles Caldwell, Lexington, Kentucky, accompanying a copy of 2d edition of his Elements of Phrenology as a dona-

tion to the Society. The Society's thanks were directed to be returned to Dr Caldwell for his present. Mr William Scott read an Essay by him on Causality, containing an attempt to analyze the function of that faculty. George Munro, Esq. advocate, was admitted as an ordinary member, and David Ritchie, Esq., Stranraer, as a corresponding member.

February 21, 1828.—It having been announced to the members, that Dr Spurzheim would address the meeting, and the Council having resolved that every member should have the privilege of introducing one lady to the present meeting, the Society's hall was crowded with ladies, ordinary and corresponding members, and visitors. Dr Andrew Combe having taken the chair, before commencing the business of the evening, welcomed the ladies, who had honoured the Society with their presence, to the meeting. Mr Lyon stated what had occurred at a visit of Dr Spurzheim to the City Asylum for Lunatics, and to the school of the Charity-Workhouse. Dr Spurzheim then explained, at great length, and in a very distinct and intelligent manner, the situation of the three lobes of the brain in the skull,—made a number of practical remarks as to measuring the development of the brain in the forehead,—and answered, very satisfactorily, the objections of Antiphrenologists regarding the frontal sinus. Mr George Combe moved, that the best thanks of the Society should be returned to Dr Spurzheim for the explanations and information he had the goodness to give them. Mr Simpson then moved, that the Society's thanks should also be presented to Dr Spurzheim for the very handsome manner in which he had yielded to the solicitations of the Society in coming to lecture on Phrenology in Edinburgh. Both of these votes of thanks were passed with much applause. Mr Phineas Deseret, writer, Edinburgh, was admitted an ordinary member; and Captain William Mitchell, and Captain Donald M'Donald, Royal Engineers, as corresponding members.

March 6, 1828.—Mr Wight read an account of a female, the anterior lobes of whose brain were penetrated extensively by spiculæ of bone. The Society's thanks were voted to Mr Wight. Mr Combe read a notice of Dupin's State of Education in France. He then read the correspondence betwixt Sir William Hamilton and Dr Spurzheim and himself. Dr Spurzheim, in making explanations regarding the cerebellum, took the opportunity (this being the last night he will be present at the Society's meetings) of returning his thanks to the Society for the manner in which he had been received since he came to Edinburgh. The warmest acknowledgments of the Society were returned to Dr Spurzheim for all the benefits which they had received from him; and, also to Mr George Combe, as the gentleman who, next to Dr Spurzheim, had done so much for Phrenology in Edinburgh. Mr Combe, in name of the Society, begged to solicit, that Dr Spurzheim will embrace the earliest opportunity of again visiting Edinburgh.

—March 20, 1828.—Mr Simpson read an Essay, being an Analysis of the "Herculaneum" of Mr Edwin Atherstone, and corresponding development, from a cast in the Society's possession. Mr Lyon read remarks by him on Dr Dwight's Account of the North American Indians. The Society's thanks were voted to Mr Simpson and Mr Lyon. The Number of the Danish Phrenological Journal for December 1827, by Dr Otto, was presented. Major Macdowall was admitted as an ordinary member.

April 6, 1828.—Mr Deseret read an Essay on the Functions of the Individualities, with an Analysis of several living Authors. The Society's thanks were voted to Mr Deseret.

April 17, 1828.—Dr Andrew Combe read a phrenological account of Mr James Wardrop's case of a lady born blind, who received sight at the age of 46. Mr Simpson read a sketch of the powers and feats of Ducrow the equestrian, illustrated by a cast of his head in the collection of the Society. He also read an account of a Chinese assassin executed at

Batavia, compared with his skull in the collection of the Society. The skull of the above assassin, and longitudinal section of the bill of the Toucan, were presented by Mr Simpson, being the gift to him of William Bremner, Esq., H. E. I. C. S. The thanks of the Society were voted to Dr Combe and Mr Simpson for these communications.

ARTICLE VIII.

LETTER FROM MONSIEUR ROYER, OF PARIS, TO MR
GEORGE COMBE, EDINBURGH, ABOUT M. VIMONT'S
COLLECTION OF CRANIA, &c.

WE solicit the attention of our readers to the following interesting communication, and will be glad to be favoured with any suggestions as to the means of aiding Monsieur Vimont in getting his splendid work brought to publication:—

Paris, March 25, 1828.

MY DEAR SIR,—Allow me to introduce to your particular notice, and that of the Phrenological Society, the following account, but lately communicated by the author and owner, of the most splendid collection that has been gathered to this day,—both of facts sagaciously observed, judiciously compared, and consigned in a large 4to manuscript, and also of the materials that show to the greatest evidence the utility and correctness of the science of Phrenology.

You have been informed, no doubt, that, in the year 1818, the Institute of France proposed a premium, the object of which was to obtain information on the organization of the skulls and cerebra of animals. Among the few who treated the subject, not one considered the question in its true light; I mean, that so admirably presented in Drs Gall and Spurzheim's works. They all entered on such details as were

more fit to put a stop to, than to forward the progress of science; such is the work of M. Serres, which, by the bye, has been crowned with success, although full of errors. A young gentleman, M. Vimont, desirous of putting to test Gall and Spurzheim's doctrine, and acting more as an antagonist than a believer, after having studied the principles of Phrenology, and read all that had been published on the matter, made it a point to find out the errors he supposed to exist, and, during six years of arduous labour, and considerable expense, procured all the specimens he could. His surgical and medical studies enabled him to proceed with method, and, otherwise admirably organized for the prosecution of his researches, he brought forward an immense quantity of well-digested observations, every one of them from nature, and made by himself on the living subjects, which he afterwards added to his collection. He manfully enters the lists for this year's premium, with a number of nearly 2000 facts, more than 1200 skulls, admirably prepared and fitted for the minutest inspection, being sawn in two or three parts, so that the internal surface of the skulls can be well seen, and the circumvolutions of the cerebra imprinted on them can be traced by such as are most unwilling to admit of the coincidence. He did cast in wax about 50 cerebra of such specimens as wanted that sort of elucidation, and caused 300 designs to be made under his direction of as many skulls, cerebra, &c., in such style, and with an accuracy that has been attained by no one to this day, without excepting the drawings in Gall and Spurzheim's works,—which are far inferior to his in point of likeness and precision. These drawings form a splendid atlas, accompanying the 4to volume of *Discours sur les Habits and Propensities of the Animals described*.

Desirous to obtain the premium for physiology, M. Vimont has presented his work to the judgment of the class *des Sciences Physiques*, and awaits the results, which I am confident will be all in his favour. Still he seems convinced, as you may all be on the other side of the channel, that the French

are much backwards respecting the doctrine, and is aware of the difficulties that would attend the publication of his work in Paris. He therefore, from what I mentioned to him of the opposite directions of ideas in England, and especially in Scotland, wishes to visit Edinburgh this or next year, and to bring with him all his materials,—and would probably either print his work with you, or dispose of his collection in favour of the Phrenological Society. But a previous opinion of what sort of reception he might expect, and of the possibility of attaining his purpose, is required; and in order to which he begs me to write you on the subject, which I the more willingly do, as I can thus give you and the Society a proof of my not having deserted the cause, inasmuch as my silence might have shown. I really am of opinion, that, if some support were offered M. Vimont, it would be for the doctrine an avowed triumph, for there can no more be made the least objection, when such a number of facts and proofs are displayed. Dr Gall, when he first saw M. Vimont's collections, exclaimed, *A nunc dimittis!* since, said he, he witnessed what in his most sanguine wishes he could not hope to have seen. He is of opinion that M. Vimont has done even more than himself, and preserves the highest opinion of his talents and faculties.

That you may form a good idea of what M. Vimont's collections consist, I have here subjoined a correct list of 1166 skulls and cerebra, prepared with infinite skill, and each elucidative of some points of the doctrine; besides the catalogue of 65 folio plates, representing 291 *crania*, *cerebra*, &c., most accurately drawn from nature.

To collect such immense numbers of facts and specimens, —to describe with the accuracy he has done so many interesting habits, comparing them with what they produce in man,—must have required more than ordinary faculties in the author, and of course cost him some time and expense. M. Vimont tells me, that he has been six years at work without loss of an hour's time, and that upwards of 12,000 francs have

been paid and expended by him to procure such specimens as are in his collection. Perchance several of his skulls may exist in the Society's collection; these he would not be at the trouble of bringing over with him; if, therefore, you could favour me with a correct list of what you possess either in casts or skulls, it would be the more acceptable, as it may be in my power to make some additions to your collection; and it is owing to the want of information on that head that what I now possess lies still with me. M. Vimont will add to them a remarkable skull,—that of the famous *Bertrand*, the *Mandrin* of Normandy, the last who was racked at Rouen, before the French Revolution,—and about a dozen more of the most interesting objects.

I shall be very happy if an answer to this could be returned by the end of this or beginning of next month, as my friend Vimont might leave Paris in May, and would be glad to take the benefit of the spring by either returning by Normandy, or directing his way towards your city. Be so kind as to remember me to your brother, Dr Andrew Combe. I have had his letter this long time, without having had time to write him. I remain, with the highest regard and gratitude, my dear Sir, yours most truly,

ROYER.

This letter was received by post only on 17th April, 1828.

G. C.

ARTICLE IX.

RENEWED CORRESPONDENCE BETWEEN SIR WILLIAM HAMILTON, BART., AND MR GEORGE COMBE.

SIR WILLIAM HAMILTON, BART. TO MR GEORGE COMBE.

MY DEAR SIR,—I have just been informed, that the late Phrenological correspondence is not to be published, simply by itself,

but that you mean to annex to it observations of your own, which I am not to be permitted to accompany with counter-remarks. I should have rejected this information as improbable, had I not recollected that something of the same kind was done by you, when our former correspondence was printed in the Phrenological Journal. I think it proper, therefore, by way of precaution, in case such may be your intention, to request, what, in every point of view, I have a *right to demand*;—that, if the letters are published, either that they should be published without comment, or, that any observations you may choose to append, should be submitted to me for my reply, previous to publication. This is *what I have done*, in simple equity to the Phrenologists; and if they do not act with fairness, and reciprocal fairness by me, it will not be difficult for the world to appreciate the motives of their conduct, and to award the punishment it deserves. I remain, my dear Sir, very truly yours,
W. HAMILTON.

16, Great King Street, Saturday Night, 5th April, 1828.

MR GEORGE COMBE TO SIR WILLIAM HAMILTON, BART.

Edinburgh, 8th April, 1828.

MY DEAR SIR,—On my return to town last night, I found your note of 5th April, and, in answer, beg leave to inform you, that it is my intention to publish the correspondence as a pamphlet, with the account of Dr Spurzheim's lecture on the *sins*, which appeared in the Scotsman of 2d February, and to which you alluded in one of your letters, without a word of comment. The conductors of the Phrenological Journal, however, I believe, intend to print the correspondence in that work, and to give a criticism upon it; but not a syllable of the commentary will be written by me. I presume they are not prevented by any rule, either of law, honour, or courtesy, from reviewing your correspondence in common with other works presented to the public on the subject of Phrenology.

You speak of what you have done in simple equity "by the Phrenologists;" and allude to what you call observations of mine on our former correspondence in the Phrenological Journal. I regret to say, that I have not recognized that equity; for, in your correspondence both with Dr S. and me, you assumed the right both of beginning and ending, whereas equity allows the party called to the field the last word. I consider myself as entitled to credit for having abstained from all commentary upon our correspondence of 1827, and it was your appeal to the public in the Caledonian Mercury, that infringed all rules of propriety in discussing the whole propositions submit-

ted to the arbiters; while they were actually seeking evidence upon them, with a view to a formal decision. I am, &c.

GEORGE COMBE.

SIR WILLIAM HAMILTON, BART. TO MR GEORGE COMBE.

MY DEAR SIR,—I am glad to hear that you mean to publish our correspondence without any partial comment. I make no objection to any criticism on it in the Phrenological Journal. Such a criticism, however, I have a right to consider as *permitted and sanctioned* by you; and if I have occasion to deal with it at all, I shall view it, as, to all intents, a production of your own, and shall accordingly thereby regulate my reciprocity towards you.

Your other observations hardly merit a reply. Nothing prevented you and Dr Spurzheim from having "the last word," but the consciousness that nothing was to be gained by continuing the correspondence. Neither of you, however, were entitled to this; for my first letters to both, *involved nothing controversial*, and were *simply the occasions* which you and he seized in your answers, to commence, on your side, a discussion. I remain, my dear Sir, very truly yours,

W. HAMILTON.

16, Great King Street, 10th April, 1828.

MR GEORGE COMBE TO SIR WILLIAM HAMILTON, BART.

Edinburgh, 10th April, 1828.

MY DEAR SIR,—I beg leave distinctly to disavow all responsibility for any remarks that may be made on your correspondence in the Phrenological Journal. I am not Editor of that work, and shall not write a word of criticism in it on that subject; and if, after this intimation, you shall treat me as the author, I reserve liberty to myself to act as circumstances may then require. I have seen the individual who has undertaken the duty of reviewer, and he authorises me, after publication, to put you in possession of his name whenever you shall demand it, and he will then be ready to answer for whatever he may have written. I am, &c.

GEORGE COMBE.

SIR WILLIAM HAMILTON, BART. TO MR GEORGE COMBE.

MY DEAR SIR,—I shall most assuredly hold you responsible for every syllable that appears in the Phrenological Journal, rela-

tive to our correspondence. When it suited your convenience, you held yourself out as Editor of that Journal; but the mere character of Editor is of no importance. No one will believe that any friend would comment on that correspondence if it were displeasing to you; no one will believe that any article on this subject would be there inserted contrary to your interest, or wish. This you dare not deny. In these circumstances, *permission* is identical with *commission*. But this is not all. You acknowledge knowing *already* "the individual who has undertaken the task of reviewer;" and you will not disavow, that, through *your agency*, the *yet unpublished* correspondence has been placed in his hands for this purpose. You know the brocard, *Qui facit per alium, facit per se*.

It is ludicrous to tell me that the name of the author shall be given up. It may be very agreeable for you to devolve the controversy on your understrappers, if I would condescend to rest satisfied with them. In this, however, you are mistaken. Though I have engaged in a discussion with you, the head of the school (and you have given me sufficient reason to feel ashamed of the dispute), it does not follow that I should stoop to encounter every *enfant perdu* of the sect, who may not blush to employ a warfare which even his principal dare not dignify with his approval. Much it would avail me to have the author (perhaps also the writer of the precious articles in the Scotsman) given up! I could not submit to expose his misstatements, or to throw back his dirt; and if I could, I should be told, forsooth, that he must answer for himself, that you "*disavow all responsibility*" for your ally. I therefore distinctly state, that I hold by you, and by you alone; and shall deem myself entitled to make the correspondence the text of a commentary on my part, if a single observation by way of criticism is hazarded on it in the Journal, by any of your friends. I shall endeavour to find a corner for it in the "*Fictions of Phrenology*."

I am told also, that *your publication of the correspondence by itself*, as a pamphlet, is all a *phrenological ruse*. *A few copies*, it is said, *are thrown off in this form, from the types which were employed in printing the letters for the Journal*; but as a sufficient number are not printed separately to satisfy the demand, and as both pamphlet and Journal are to be published at the same time, if not about the same price, (the pamphlet, we know, has been ready for nearly ten days), the circulation of the correspondence, *with the phrenological gloss*, will thus be almost exclusively secured, and secured under the semblance even of impartiality. This, however, is altogether too shallow and too dishonourable a stratagem to be credited: and I profess my own incredulity, as you declare that you only "*believe the conductors of the Phrenological Journal intend to print the correspondence*." If the report were true, you must have known the

fact, and the fact THAT IT WAS ALREADY DONE, AND DONE BY YOUR OWN CO-OPERATION, IF NOT BY YOUR SINGLE ACT: I remain, my dear Sir, yours very truly,

W. HAMILTON.

16, Great King Street, 10th April, 1828.

MR GEORGE COMBE TO SIR WILLIAM HAMILTON, BART.

Edinburgh, 11th April, 1828.

MY DEAR SIR,—This discussion may be briefly terminated. I repeat, that I shall not write a word of a commentary on your correspondence; but I leave you at the most ample liberty to write on it whatever you please, and to follow your own discretion in regard to what you shall say of me. I shall defend myself, if assailed, as circumstances may require; but I never deprecated your attack. Farther, you are at perfect liberty to print as many copies of the correspondence without commentary as you please; as also to reprint it in any separate work, your "Fictions," or any other, with your commentary appended to it; in short, just take your will of it; but do not attempt to intimidate me from doing what appears to myself proper. I am not bound, at my own expense, to print such a number of copies as you may suppose necessary for circulation. It is utterly incorrect, that both pamphlet and Journal are to be published at the same time; the former will be published on Monday, the latter not till May; and it is equally incorrect to say, that the pamphlet has been ready for nearly ten days; I revised the last proof of it only after my return from the country this week. I have ordered 250 copies of the pamphlet to be thrown off for sale, and this, I think, is double the number the public will buy; but if you think otherwise, I shall increase the impression to any amount, on your guaranteeing the expense of whatever extra copies you may desire. I say this in the belief that the types are still standing, and have sent notice that they may not be taken down, till you give farther orders, through me.

As to the other observations in your letter, I am restrained, by self-respect, from entering upon them, but protest against being held as admitting their propriety or justice. I am, &c.

GEORGE COMBE.

SIR WILLIAM HAMILTON, BART. TO MR GEORGE COMBE,

MY DEAR SIR,—May I request that the criticism on our correspondence, which, you tell me, is to appear in the ensuing Number of the Phrenological Journal, may be communicated to me

before publication, and that I may be permitted to accompany it with a reply?—I am, my dear Sir, very truly yours,

W. HAMILTON.

16, Great King Street, 12th April, 1828.

This letter was laid before a meeting of the conductors of the Phrenological Journal, who agreed to communicate their critique to Sir William Hamilton before publication, and allow him to reply. It was their intention to present both in this Number; but this additional correspondence, and the length of Mons. Royer's letter, just received, about Mons. Vimont's collection, and which requires immediate publication, compel them to postpone both till next Number.

EXTRACT FROM LETTER DR SPURZHEIM TO MR GEORGE COMBE,

Dated Glasgow, 19th April, 1828.

I AM SORRY for a mistake in my correspondence with Sir William Hamilton, which I found on reading the printed pages. In my last letter inserted in the Caledonian Mercury, I trusted too much to my recollection, and said that, according to him, the cerebellum has its full growth at three years. I ought to have copied his words, as I did in my first letter in the Mercury (see p. 9 of the correspondence). I avow, with all my heart, that I was wrong in not copying his words, but his *true* proposition is as untenable as the other.

ARTICLE X.

THE FOREIGN QUARTERLY REVIEW, No IV. ARTICLE I.

—“GALL AND SPURZHEIM—PHRENOLOGY.”

THIS is a long, able, pungent, historical, and argumentative defence of Phrenology, in answer to Mr Jeffrey's criticism in the Edinburgh Review, and proceeds from the pen of Richard Chenevix, Esq., of Paris. This gentleman, we have reason to believe, was the second British subject who embraced the doctrines of Gall. In 1803, he heard the subject mentioned by Mr Ferguson of Raith, who was then in Paris, returning from Vienna. In 1808, he heard Dr Gall himself lecture, and was convinced by his facts, although his incom-

plete metaphysics did not satisfy him. He admired them, however, even imperfect as they were, for having exploded perception, memory, and imagination, as fundamental faculties, and substituted the real powers in their place. On becoming acquainted with the progress which Dr Spurzheim had made in giving form and consistency to the science, his zeal was again warmed, and now he does not more firmly believe, that sulphuric acid and barytes unite to form an insoluble salt than he does that No 13, for instance, is the organ of Benevolence, making all due allowance for evidence, *a part* of which is moral, while *all* the other is physical. He is well known also as an able contributor to the Edinburgh and Quarterly Reviews, and we sincerely rejoice to see so eloquent and thoroughly-informed a champion espouse our cause.

The article extends to 59 pages, and commences with a pretty full and very distinct history of the discovery and progress of Phrenology. This is the most effectual means of exploding the unfounded assertion, a thousand times refuted and as often repeated, that it is a mere invention of the brains of its founders. Some sound and judicious remarks are next given on the distinctive contributions of Drs Gall and Spurzheim to the science, and the Reviewer concludes with an acute analysis and eloquent refutation of Mr Jeffrey's criticism. The Foreign Quarterly has already obtained so extensive a circulation that extracts are superfluous. We can bear testimony to its wide diffusion in Edinburgh, and, in particular, to the fact, that the article now noticed has been most extensively read, and produced a decided and highly-favourable impression. The Review arrived in this city at the time when Dr Spurzheim had concluded one course of lectures, and was half through with a second; and it was quite evident that his success, and the appearance of this defence in a work of such unquestionable importance, affected the nerves of the gentlemen of the old school, who have staked their philosophical reputation against Phrenology in a manner the very

opposite of agreeable. Their sentences broke out in the form of ludicrous anecdotes, distorted facts, and affected contempt, loudly expressed, industriously circulated, and magnified in their transit from person to person, till frequently every lineament of truth, if the stories ever possessed any, had entirely disappeared. These efforts proved as vain as all that preceded them; and the effect of Mr Chenovix's exertions will remain as a permanent good after these ebullitions shall have died away, which already they are rapidly doing.

The article is disfigured by the pusillanimity of the editor, who, conceiving himself not sufficiently protected by disavowing it at the beginning and the end, has thrust into every sentence in which the "we" of editor occurs, the word ("Phrenologists") within parenthesis, as here printed. We hope he is already ashamed of the proceeding.

NOTICES.

DR SPURZHEIM'S VISIT TO EDINBURGH.—Dr Spurzheim arrived in Edinburgh in the first week of January, and left it about the middle of March. He delivered a popular course of lectures on Phrenology, which was attended by 200 ladies and gentlemen; he delivered also a separate course on the anatomy, physiology, and pathology of the brain, to 80 medical gentlemen, of whom four-fifths were students. By application, he repeated his popular lectures, and the second course was attended by above 20 ladies and gentlemen. He was received with the highest respect, and listened to with the deepest interest. His great talents, extensive information, and upright and sensible sentiments, carried conviction to every mind capable of recognizing those qualities, that Dr Spurzheim's character and attainments were diametrically opposite to the representations of them so long and so shamefully disseminated by the British press. A great difference was observable between the manner in which his audience listened to his lectures in 1817 and 1828. On the former occasion the authority of the *Edinburgh Review* was paramount, and a smile of incredulity sat on the countenances of many of his hearers as their fixed impression; they were on the watch for something extravagant, and were disappointed rather than gratified by the force of his demonstrations and soundness of his arguments. In

1823, his auditors yielded readily and cordially to the impression of his talents; they listened with the most profound attention and sincere respect; they felt his power to enlighten and instruct them, and, in consequence, opened their minds to receive positive ideas, and were richly rewarded for doing so. The previous preparation, which many of them had received by becoming partially acquainted with Phrenology, also enabled them to profit more by Dr Spurzheim's teaching,—for his mind and manner are calculated to excite and carry forward those who have already passed the threshold fully more than to communicate the simplest elementary ideas. Dr Spurzheim was equally successful in his lectures to the medical students. He succeeded in convincing them of a fact, which, in general, they are too apt to forget, viz. the general ignorance of physiologists of the uses of the different parts of the brain, of the real structure of that organ, and of the nature and causes of insanity. His dissections were minute and most sedulously demonstrated. He said, that he did not pretend to convince his auditors that Phrenology is true,—that they must go to nature, and learn its truth by observation,—but that he hoped he had shown enough to satisfy them, that it was of the very highest importance to the medical profession, and that no labour which they could bestow on its investigation would go unrewarded. The effect of these lectures was to disabuse the students of the misrepresentations about Dr Spurzheim and his doctrines, dealt out to them every season by some of their teachers, and to enable them to judge for themselves of the truth as well as dignity of the attacks which continue to be made, *ex cathedra*, on Phrenology and Phrenologists, and also to enable them to prosecute the science for their own satisfaction. Dr M'Intosh and Mr Syme, with great liberality, presented Dr Spurzheim with the use of their excellent theatre as a lecture-room for the medical course.

During Dr Spurzheim's residence in Edinburgh, Mr Lawrence Macdonald, sculptor, modelled an admirable bust of him, which combines the most perfect likeness, with the majesty and grace of an antique. This bust is by far the best which we have seen of Dr S.; his mind is portrayed in it in all its strength and simplicity. We recommend to Societies, and to the admirers of Dr S., who desire to possess a representation of him, to procure casts, which we understand cost only three guineas each.

GLASGOW.—Dr Spurzheim was requested, by a special requisition, to lecture in Glasgow, and has just terminated in that city a popular course, attended by 250 ladies and gentlemen, and a professional course, attended by 60 medical practitioners and other individuals, to the great satisfaction of those who have heard him.

Both in Edinburgh and Glasgow, Dr Spurzheim, and Mrs
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Spurzheim, who accompanied him, have been received in private society in the most cordial and attentive manner by persons of the first respectability in these cities; and both have left a deep impression of their individual worth on those who enjoyed the honour of their acquaintance. Mrs Spurzheim is a lady worthy of such a husband, and it is difficult to say more in her praise.

We understand that Dr Spurzheim received invitations to lecture in the Bath Institution and in Belfast this year, which he was obliged to decline on account of other engagements.

MANCHESTER.—We learn by the newspapers, that Dr Holland has delivered a course of lectures on Phrenology at the Mechanics' Institution in Manchester, which, from the printed reports, appear to have been able, interesting, and attended "by a highly-respectable and numerous audience of ladies and gentlemen."

VOGEL and HUFELAND on Phrenology.—In Number XV. of the Journal, p. 471, we noticed favourable testimonies from these German authors in favour of Phrenology, and stated both of them as recently published. From our foreign correspondent's first letter, we understood this to be the case; but, on inquiry, we find that we had fallen into error. Vogel published in 1825, but Hufeland's remarks appeared in an appendix by him to Bischoff's account of Gall's doctrine, 2d edition, p. 117, 119, printed at Berlin in 1805.

Mr Combe has an essay "on the Constitution of Man, and its Relation to External Objects," in the press, which will be published in July.

COPENHAGEN.—Dr Otto proceeds with increased vigour and success in the diffusion of Phrenology. His Phrenological Journal continues to be published quarterly, and, from the table of contents, we perceive that it communicates much valuable information on the science. We have received a recent Number, in which several of our own articles appear in translation. We regret that our want of knowledge of Danish prevents us from enriching our pages with translations of the original articles of Dr Otto and his coadjutors.

TO OUR READERS.—The engagements of the leading conductors of the Phrenological Journal during Dr Spurzheim's residence in Edinburgh, rendered it impossible to send this Number to the press at the proper time; and, after his departure, the correspondence with Sir William Hamilton was unexpectedly renewed, and caused considerable delay in waiting for its termination. We offer these apologies for want of punctuality in the present instance. We already possess materials for the next Number, and it will positively be published in August.

1st May, 1828.

EXTRA LIMITES.

CORRESPONDENCE BETWEEN THE CONDUCTORS OF THE PHRENOLOGICAL JOURNAL AND SIR WILLIAM HAMIL- TON, BART.

THE Conductors of the Phrenological Journal present compliments to Sir William Hamilton, and beg leave to inform him, that, at a meeting called expressly for the purpose of considering and deciding on a request, stated in his note to Mr Combe, of date 12th instant, regarding his making, in that Journal, a reply to, or commentary on, the correspondence between him and Dr Spurzheim and Mr Combe, they came to the resolution of granting it, on condition of Sir William's paying the expense necessarily to be incurred in printing, if inserted in the forthcoming Number. They require this on the ground of that Number being already full, and such reply or commentary constituting extra matter. But should Sir William prefer, they are willing, at their own cost, to give what he may think necessary in the succeeding Number. They make these offers solely because of the peculiar circumstances of the case, and with the understanding, that the permission will be deemed by Sir William, as it is by them, a concession and departure from the principles of conduct usually adopted and recognized in literary journals.

Edinburgh, 10th April, 1838.

Sir William Hamilton, Bart., &c. &c.

SIR WILLIAM HAMILTON presents compliments to the Conductors of the Phrenological Journal, and begs leave to observe, that they completely reverse the purport of his note to Mr Combe, in saying that it was "regarding his (Sir W.'s) making "in that Journal a reply to, or commentary on, the correspondence between him and Dr Spurzheim and Mr Combe." He stated then, as distinctly as he does now, that he only requested to be allowed to accompany with a reply *the criticism or review* of that correspondence *on the part of the Phrenologists*, which, he was informed by Mr Combe, was to appear along with the letters in the ensuing number of the Journal. If the correspondence were to be printed, as he thinks it ought, without observation or comment by either party, in that case Sir W. would never have dreamt of writing any remarks, or, where he could prevent it, of allowing any remarks to be written on what he regards as a closed pleading; far less would he have been so

absurd as to request their insertion in the Phrenological Journal. Sir W. is ready to pay whatever expense the publication of a rejoinder to the new pleading by Mr Combe's friend may occasion. This will not be written by himself. At the same time, he cannot view, and would not choose to accept, the insertion of that reply *as a favour*. In so far as the Phrenological Journal professes to give a full and impartial report of the evidence for and against the doctrine, it affords Sir W. a title (and, in the circumstances of the case, the *strongest* title,) to put its professions to the test; but it is only in as much as it thus incurs a *general obligation*, that he would presume to prefer a request to its conductors.

16, Great King Street, 15th April, 1828.

THE Conductors of the Phrenological Journal return compliments to Sir William Hamilton, and beg leave to inform him, that, in their letter of 15th April, they acceded to Sir William's request regarding his making in that Journal a reply to a commentary on the correspondence between him and Dr Spurzheim and Mr Combe; and, if they expressed themselves differently, it was unintentionally, and the difference must have arisen from an error in transcribing their minute, in using "or" for "a" before the word "commentary." Having acceded to Sir William's request, they consider it unnecessary to discuss whether Sir William is entitled to their compliance as a matter of right, or bound to accept of it as a favour. They add also, that, owing to the press of other matter, they are obliged to postpone the commentary till their next Number, in which they will insert Sir William's reply.

Edinburgh, 21st April, 1828.

PHRENOLOGICAL JOURNAL.

No XVIII.

ARTICLE I.

PHRENOLOGICAL ANALYSIS OF ELOQUENCE.

(Read to the Phrenological Society by Mr Simpson.)

PRINCIPAL Campbell, in his work on the Philosophy of Rhetoric, which has long been and still is a standard guide, defines eloquence in its greatest latitude, "that art or talent" by which discourse is adapted to its end;" and quotes Quintilian, "*dicere secundum virtutem orationis;—Scientia bene dicendi.*" Dr Campbell admits that his definition is much more comprehensive than the common acceptation of the term eloquence, but, nevertheless, adopts it for two reasons; 1st, It is best adapted to the subject of his essays (scarcely a test of the *absolute* correctness of a definition); and, 2dly, It corresponds with Cicero's notion of a perfect orator, "*qui dicendo, animos audientium et docet, et delectat, et per-movet.*" It is plain that Cicero does not warrant Dr Campbell's very extensive definition; for many a discourse is perfectly adapted to its end which neither instructs, nor delights, nor strongly moves. Cicero, however, calls that an eloquent discourse which, at one and the same time, does all the three; and, as will appear in the sequel, the Roman is more phrenological in his definition than the Scottish rhetorician.

Dr Blair adopts substantially Campbell's extensive de-
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finition. "To be eloquent is to speak to the purpose;" and "eloquence is the art of speaking in such a manner as to attain the end for which we speak." This elegant rhetorician, however, soon limits his definition, which, he says, "comprehends all the different kinds of eloquence, whether calculated to instruct, to persuade, or to please. But as the most important subject of discourse is action, the power of eloquence chiefly appears when it is employed to influence conduct and persuade to action. As it is principally with reference to this end that it becomes the object of art, eloquence may, under this view of it, be defined, *the art of persuasion.*"

Eloquence, etymologically interpreted, is *speaking out*; in other words, raising the voice to harangue a multitude; and this its original characteristic has, by the figure of speech *senecdochè*, continued to give it a name, whatever degree of "image, sentiment, and thought," beyond what belongs to common discourse, from the howling appeal of the savage, through all the stages of reasoning and rhetoric, up to the impassioned yet clear and logical speech of the orator of civilization, is therein comprehended. But the name eloquence has been yet farther extended; it has been borrowed to distinguish a mode of composition and expression where there is neither haranguing nor speaking out; namely, that effusion of imagery and sentiment with which the poet exalts and enriches even his prose, and to which no orator ever reaches who is not a poet. "Song," says one of the masters, "is but the eloquence of truth;" truth to nature, in the widest, the most eloquent sense of that high term.

But the question recurs, What is eloquence in itself—it matters not whether written or spoken, said or sung,—as distinguished from all other kinds of discourse, each kind presumed fitted to its own end? The grand advantage possessed by a phrenological over every other test of the soundness of a theory on any point of anthropology, consists in its instant appeal to the primitive faculties of the human mind, to which faculties the whole of nature bears a definite and easily-observed relation. It is for want of such a guide that the theories, even of the most venerated leaders of the old

school, vanish in vague generalities. When Campbell says that eloquence is either "instructive, imaginative, pathetic, "or vehement;" tending "to enlighten the understanding, "please the imagination, move the passions, or influence "the will;" when Blair writes, that eloquence "either "instructs, pleases, or persuades," which is a translation of Cicero's "*docet et delectat et permoveet*," but with the disjunction instead of the conjunction, the reader who thinks phrenologically is left quite unsatisfied. He derives no definite idea from Campbell's enumeration; and on the strength of the phrenological fact, that every faculty of the mind is pleased in its own exercise, he is forced to reject Blair's distinction between teaching and pleasing as necessarily different things; for they are often most closely connected. Cicero avoids this error by using the conjunction; but even Cicero's view is indefinite. The Phrenologist inquires, What is it to be instructed, to be pleased, or to be persuaded? It is to have certain of our primitive faculties in a certain way affected or excited; and a great step will be gained when, dismissing such generalities as instruction, pleasure, and persuasion, we can say definitely, that eloquence is speech which is ultimately addressed to and excites certain of our primitive faculties in a certain way.

The faculties being all comprehended in the two classes of the intellect and the feelings, eloquence must be addressed to faculties in both or either of these classes. There seems no difficulty in now seeing our way. No one who has listened to true eloquence, or seen its effect on others, can for a moment doubt that it rouses *feeling*; and that speech which falls short of this effect is not eloquence, whatever may be its distinctive character and merits. But speech which does fall short of exciting any of the feelings must, nevertheless, of necessity put into greater or less activity the intellect of the hearer; in other words, furnish him with ideas, or add to his knowledge, and there stop. A prelection on the facts and phenomena of an inductive science, however it may de-

light the knowing faculties, is both delivered and heard with all the tranquillity of the intellect, and rouses nothing that can be called feeling. The same is true of logical deduction and mathematical reasoning addressed to yet higher intellectual faculties, the reflecting; these also are listened to without the least admixture of feeling. What then, it may be asked, is the use to the orator of the intellectual faculties of his hearers? I would answer, of such use, that he would speak in vain if his hearers had no intellectual faculties; but so he would if they had no sense of hearing; without the ears and without the intellect as the channels, the speaker could not reach the feelings. He must furnish ideas to rouse the feelings; but as the feelings do not form ideas, but merely and blindly *feel*, the speaker must approach them through the channel of the intellect. Now this is a distinction which Phrenology alone clearly points out, and which removes the difficulty under which the rhetoricians of the old school labour. They make no distinction between addressing the intellect ultimately, and addressing the intellect as a medium of excitement of the feelings. When they speak of addressing what they vaguely call the passions, there is nothing in their words, nor in those of the metaphysicians on whose theories they found, to indicate that they even suspected that the passions must be addressed through the medium of the intellectual faculties. It is therefore they hold, and hold erroneously, that one species of eloquence does no more than instruct. They mistake the address to the intellect as a channel to the feelings, for an address to the intellect as the ultimate object of the address, and conclude that there is an eloquence which instructs the intellect, and goes no farther. Whenever it does so, we may rely upon it, it possesses not one quality of eloquence. I by no means deny, that a discourse ultimately addressed to the intellect may have its own peculiar beauties of the highest order; I only contend, that these are something different from eloquence. It has been well

said of Euclid's demonstrations, that in more, or fewer, or other words, or words otherwise disposed, they could not have been so well expressed. Such composition pleases, but it pleases intellectually, and moves no feeling. It has likewise been said of Playfair's mathematical expositions, that there is in them an exquisite adaptation to their purpose, which has induced some to call them eloquent. They give intellectual pleasure, but they stir not a single feeling; and therefore it is to misapply a term meant for another thing, to call them eloquent.*

If it be essential to eloquence to move the feelings of the hearer, it is no less essential that the same feelings should be active in the speaker, and be manifested by every means of manifestation. "*Si vis me flere, dolendum est primum ipsi tibi.*"

If we have now arrived at a distinctive idea of that thing called Eloquence, its definition follows naturally; namely, speech, prompted by one or more of the affective faculties or feelings in vivid activity in the speaker, calculated to excite to vivid activity the same feelings in the hearers. Cicero with much propriety uses the word *permovere*. Assuming, then, that the affective faculties are both the sources and the objects of eloquence, it obviously follows, that eloquence must exhibit varieties of character corresponding not only to the number of these faculties, but to their greatly more numerous combinations. It were in vain to follow out the inquiry so minutely; and it is needless, inasmuch as a twofold division of eloquence, corresponding to the twofold division of the feelings into the propensities and the sentiments, will suit our present purpose. One license only I

* An ingenious friend has suggested, that such admirably-adapted discourses delight Ideality, which *feels* the exquisite and perfect. If they owe their beauty to this *feeling*, then, on the present theory, they are so far eloquent. I am rather inclined, however, to think, that the intellectually exquisite pleases the intellectual faculties only, and that it is rather to extend the function of Ideality to admit its interference.

shall use, and include in the class of the eloquence of the propensities the lower and selfish sentiments of Self-esteem and Love of Approbation ; a liberty this rather with phrenological classification than with experience ; for these sentiments are, *de facto*, very close companions of the propensities, and never fail to characterize the lower species of eloquence. The propensities chiefly addressed by eloquence are Amativeness, Philoprogenitiveness, Adhesiveness, Combativeness, Destructiveness, Acquisitiveness, and Secretiveness. The eloquence of the sentiments comes from and is directed to Benevolence, Justice, Hope, Veneration, Ideality, and Wonder. Cautiousness and Firmness have a bicratic character, and may be found acting along with the propensities or with the sentiments, according to circumstances.

As Phrenology has established an ascending scale of dignity from the lowest propensities to the highest sentiments, we are at once furnished with a coincident meter to estimate the rank of the eloquence which springs from and is addressed to particular feelings. We are presented with a critical gauge by which we can determine, *a priori*, the kinds of eloquence which would respectively move savages, barbarians, civilized men of antiquity, and civilized men of modern times ; for it is established phrenological doctrine, that these respective grades of advancement of human society, are terms convertible into others that express the corresponding degree of prevalence, in a given community, of the propensities or the sentiments. The propensities preponderating, we have barbarism ; the sentiments, civilization. A speaker cannot manifest feelings which he himself very weakly or scarcely at all experiences ; and it is equally plain, that an audience cannot be moved unless feelings are addressed which they possess : and this is true not only with regard to different nations and different ages, but with regard to different classes of the same people. Witness the different character of speeches uttered on the same day in St Stephen's Chapel and in Palace-yard. It is accordingly true, that we

do find the character of the eloquence of any tribe or nation precisely commensurate with its degree of civilization. We are in possession of specimens of savage eloquence—of barbarous eloquence—of ancient eloquence—and of modern eloquence, and I shall now proceed to compare them.

1. The eloquence of the savage addresses exclusively the propensities; and, applying the simplest and most palpable facts as the exciting cause, reaches the propensities by no higher intellectual medium than Individuality. In the very minute account of the Tonga Islands, given by Mariner, who was long resident there, we have several of the speeches of their warlike chief, Pinou, and others of the natives. The chief of Vavaoo is assassinated with the connivance of Pinou, and as he lay dead, a young warrior, who believed his father had been killed by a conspiracy of the deceased's, rushed forward, and striking the body several times, thus apostrophized it:—"The time of vengeance is come! thou hast been long enough the chief of Vavaoo, living in ease and luxury; thou murderer of my father! I would have declared my mind long ago if I could have depended on others; not that I feared death by making thee my enemy, but the vengeance of my chief, Toobo Toa, was first to be satisfied; and it is a duty I owe the spirit of my father to preserve my life as long as possible, that I might have the satisfaction to see thee thus lie dead." He then repeated his blows several times. Savage Veneration and Adhesiveness mark this picture; but Self-esteem and Destructiveness form its strongest lights. Counter-revenge, of course, animates the harangue of the adopted son of the fallen chief, which is also given. Vengeance for the same murder calls forth a female orator, who taunts the men with their hesitation. We need not extract it.

2. The barbarian grade shows little or no improvement in moral feeling. The speech of Adherbal the Numidian, the brother of Hiempsal, who was murdered by Jugurtha, is preserved by Sallust; and is stated by that historian to have been poured forth to the Roman senate, to move them to assist him to *revenge* his brother's death, and dethrone the

usurper. It is an effusion of unqualified ferocity and selfishness. After inveighing against Jugurtha with every epithet of vituperation, and painting *his own* wrongs as an exiled prince, with, of course, a full detail of his brother's gory wounds and bloody shroud, he thus concludes:—"So far from having it in my power to revenge his death, I am not master of the means of securing my own life; so far from being in a condition to defend my kingdom from the violence of the usurper, I am obliged to apply for foreign protection for my own person. Fathers! Senators of Rome! the arbiters of the world! to you I fly for refuge from the murderous fury of Jugurtha. By your affection for your children, by your love for your country, by your own virtues, by the majesty of the Roman commonwealth, by all that is sacred, and all that is dear to you, deliver a wretched prince from undeserved, unprovoked injury, and save the kingdom of Numidia, *which is your own property*, from being the prey of violence, usurpation, and cruelty." This concluding adjuration was well suited to the Roman senate, and we all know the result; but it is evident, that in no part of it, with the exception of one allusion to veneration, such as it was among the Romans, does the orator address a feeling of higher rank than the propensities and lower sentiments. The touch was skilfully added to the picture that Numidia was the Roman's own property; but, above every other part of the adjuration, that touch degrades at once the speech, the speaker, and the audience.

Livy has preserved, or composed, it matters not which for our purpose, the speech of the elder Brutus over the dead body of Lucretia. This ferocious effusion is too well known to require to be quoted here.

3. The third stage of eloquence is found in that degree of civilization at which the Greeks and Romans arrived; namely, a high attainment of knowledge and advance in reflective culture; but still allied with a decided predominance of the animal propensities and lower sentiments. Perhaps there is no better test of the true level of character of those imposing communities, than is afforded by the kind of eloquence which suited them, respectively. That level is comprised in

a word. They had advanced in Intellect, but stood still in Sentiment; they equalled the most accomplished moderns in philosophical asumen and didactic power, while they were but a little beyond the Tonga islanders in practical morality.

In the age of Pericles, the Athenians are held, by a sort, of habit of opinion, to have been a highly-refined and civilized people; but assuredly they were not civilized in moral feeling. Thucydides has preserved an oration spoken by Pericles, at the public funeral of the first Athenians who fell in the Peloponnesian war; which lengthened and useless bloodshed lies mainly at that orator's own door. After expressing a fear, not unfounded, that the *strangers* present might not assent to his high eulogies on his own countrymen, the orator, this hazard notwithstanding, launches out into the most extravagant praises of the Athenian bravery, of the Athenian government; borrowed by other states, but original at Athens, the grandeur of Athens, the elegant luxury of Athens, the *splendid* beneficence of Athens, the accomplishments of *all* Athenians—"I shall sum up what yet remains "by only adding, that *our* Athens, in general, is the school of "Greece; and that *every single* Athenian among us is excellently formed, by his personal qualifications, for all the various "scenes of active life, acting with a most graceful demeanour." Then follows an effusion of ultra-extravagant exaltation of Athenian prowess and power. It needs no great phrenological skill to perceive that such dull nationality evinces nothing more than the activity to abuse of the inferior sentiments of Self-esteem and Love of Approbation. Then follows, as may be expected, an eulogy on those who died valiantly for such a country. They have various merits, but "one passion there was in their minds *much stronger* than these, "the desire of vengeance on their enemies. Regarding this as "the most honourable prize of dangers, they boldly rushed towards the mark to seek revenge, and then to satisfy those secondary passions."

* These, and the subsequent extracts from ancient orators, are taken from Leland's translations.

Such was the sum of Grecian virtue in the age of Pericles ; and it never reached higher. When we contemplate the war, too, in which the heroes died, we find it one sought for and inflamed by Athens ; carried on by her with injustice, cruelty, and pride ; and ending in the most lamentable humiliation that ever visited such outrages on moral sentiment. The other orators of Greece, for they were a numerous corporation, sounded the same notes, all addressed to the war-making faculties ; and it is curious that it was always an article in the demands of a successful enemy, that the orators should be delivered up to them ; a proof that they were most justly considered as the grand excitors of the warlike propensities in so exciteable a people as the Athenians. It were tedious to cite examples from other remains which have descended to our time, but we cannot omit Demosthenes, who affords a specimen of the eloquence of Greece about a century after Pericles harangued, cheated, and ruined the Athenians. The speeches against Philip are manifestations of the highest *intellectual* power. They are models of political wisdom and just reasoning, with a fertility of resource for his country that must have greatly strengthened his reasonings, and his appeals to the reigning passions of his audience. With the intellectual merit of his orations we of course have nothing to do, farther than in so far as it confirms the position, that a people who are highly enlightened intellectually, may still be low in moral civilization. These able reasonings, which come through the channel of the reflecting faculties, attempt no higher region of the Athenian head than Cautiousness, Love of Approbation, and Self-esteem. They frequently stoop much lower, to Destructiveness, Combativeness, Acquisitiveness, and Secretiveness ; but they never rise higher. “ When, therefore, O my countrymen ! when “ will you exert your vigour ? When roused by some event ? “ When forced by some necessity ? What then are we to think “ of our present condition ? To freemen, the disgrace attending “ our misconduct is, in my opinion, the most urgent necessity. “ Or say, is it your sole ambition to wander through the public

"places, each inquiring of the other 'What new advices?' Can any thing be more new than that a man of Macedon shall conquer the Athenians, and give law to Greece? 'Is Philip dead? No, but he is sick.' How are you concerned in these rumours? Suppose that he should meet some fatal stroke, you would soon raise up another Philip, if your interests are thus disregarded." After showing, in many powerful ways, that the Athenians themselves were the cause of Philip's success, and again reproaching his countrymen for believing in idle rumours, instead of acting promptly and vigorously, he says, "Let us disregard these rumours; let us be persuaded of this, *that he is our enemy, that he hath spoiled us of our dominions*, that we have long been subject to his insolence; that whatever we expected to be done for us by others hath proved against us; that all the resource left us is in ourselves; that if we are not inclined to carry our arms abroad, we may be forced to engage here. Let us be persuaded of this, and then shall we be freed from these idle tales. For we need not be solicitous to know what events will happen; we may assure ourselves that nothing good can happen unless you grant the due attention to affairs, and be ready to act as becomes Athenians." In these short quotations, we may say is comprised the germ of all the Philippics. It is amplified in various ways, and presented in many forms, and with the advantage of admirable logic; but the insult to the Athenian name is the head and front of Philip's offending, and is protruded at every point to the eyes of the multitude. It is impossible to conceive a more powerful appeal to Self-esteem, put in words, and, to give it more exquisite point, concentrated in one word, than "that a Macedonian—a barbarian should subdue Athens!" Athens, of whose estimate of herself the oration of Pericles may serve to convey some idea. No orator ever included more in a single expression than Demosthenes. "You would raise up another Philip," might be dilated into several sentences, but with what a loss of force and effect!

We shall search the orations of Demosthenes in vain for higher morality than we have now alleged to belong to them; therefore the high estimation in which they have been held for above 2000 years must be looked for in some other qualities. On these all critics are agreed. He was, if pos-

sible, a more consummate *pleader* than even Cicero; his style had a kind of magic and music peculiar to itself, even in the impressive and sonorous Greek, quite beyond the power of translation or description. Even when he had not the best side of the question, his powers of rhetorical deception were unrivalled; his delusive reasoning, when employed, was not detected till it had already produced its effect; by means of subtle insinuation, he steered clear of committing himself by assertion; and he could put a meaning into silence itself more powerful than words could convey. Quintilian says of him, that he had a power of arraying his subject in majestic terror which alarmed and electrified, without stooping to aggravate, still less to exaggerate. The most prepossessed against the insolence and tyranny of Athens are hurried along as they read in the original Greek a speech of Demosthenes against the presumptuous barbarian of Macedon; and share, even at this day, that jealousy, disdain, and impatience for action, with which the orator filled the bosoms of the Athenian multitude. Quintilian and Cicero are rivals in the eloquence with which they even describe the powers of Demosthenes; and the moderns have written volumes on that gifted being. But I will venture to say, that in all their pages *that* vital truth remains undiscovered,—at least it is unnoticed, that the morality of his orations is not exalted, and that all the witchery of this syren of eloquence—as his rival Eschines called him from the melody of his language—was thrown away upon the baser passions of human nature. We do not require to take part in the controversy about his honesty, his gold cup from Harpalus, his alleged bribes from Persia, or his cowardice at Cheronea. Admitting his good faith, his eloquence would still want the essential element of oratorical supremacy, namely, an appeal to the moral sentiments.

We come now to Cicero, and in his eloquence we shall find the same excellencies and the same essential defect,—a defect which stamps his rank in the scale of eloquence with

that of Demosthenes, no higher than intellectually civilized barbarism. The moral sentiments in their purity and supremacy are not found in Cicero; and even if they had influenced himself, they would not have commanded the sympathy of the Romans. It has often been remarked, that Cicero's orations are more agreeable to read than those of Demosthenes. This proceeds from their being higher efforts of literature, embracing a greater variety of subjects, and having a richer apparel of rhetorical ornament; but it is generally held that Demosthenes must have produced the most powerful effect on his audience. It is plain that it is loss of time to compare these two orators, or to decide their pre-eminence, when each was pre-eminent in his own way. The Greek was close, clear, terse, rapid, simple, majestic. The Roman was copious, correct, ornate, magnificent. The Greek carried the citadel by storm. The Roman took it after a regular and most beautifully-conducted siege. The pleading of the latter for Milo is one of the most perfect structures of circumstantial evidence which has in any age been addressed to a judge's ear. The chain, not only strong but bright in every link, whereby he proves Clodius the intended murderer, and Milo the brave self-defender, gives evidence of intellectual accomplishment of the highest order; while, as he goes along, he artfully touches the *pride* and *vanity* of the Romans, and directs their *hatred* against Clodius. Pompey he *flatters*, and with great effect interprets the guards that were meant to overawe him into his intended and efficient protectors. But he speaks not to higher feeling; and when, in his peroration, he cannot avoid an appeal to benevolence and justice, which he observes bathed every face in tears except that of the heroic disinterested Milo, there is an artifice, a getting-up, a scenic character about it, which speaks too plainly against the easy every-day excitement of these high feelings which we should find in the breasts of a more moral people. "By the immortal gods, I wish, (pardon me, O my country! if what I shall say for

"Milo shall appear impiety to thee,) I wish that Clodius not only lived, but were prætor, consul, dictator, rather than be witness to a scene like this. How brave a man is that, and how worthy of being preserved by you ! By no means, he cries ; the ruffian had the punishment he deserved, and let me, if it must be so, suffer the punishment I have *not* deserved. Shall this man, then, who was born to save his country, die any where but in his country ? Shall he not at least die in the service of his country ? Will you retain the memorials of his gallant soul, and deny his body a grave in Italy ? Who will give his voice for banishing from this city, him whom every city on earth would be proud to receive within its walls ? Happy the country that shall receive him ! Ungrateful this if it shall banish him ! Wretched if it shall lose him ! But I must conclude ; my tears will not allow me to proceed, and Milo forbids tears to be employed in his defence. You, his judges, I beseech and adjure, that in your decision you would dare to act as you think. Trust me, your fortitude, your justice, your fidelity will more especially be approved of by him, who, in his choice of judges, has raised to the bench the bravest, the wisest and the best of men."

Nevertheless Milo was banished. Pompey's guards spoke Pompey's will in another sort of eloquence ; and this skilful and brilliant appeal,—in which, although there is both fear and flattery, there is some right feeling, although much Secretiveness, yet some justice and mercy,—found no justice, no fortitude, no fidelity, in the already enslaved Forum of Rome.

Cicero's accusation of Verres, who had been Proconsul of Sicily, a monster of injustice and cruelty, who might challenge comparison with the choicest, either in republican or imperial Rome, is throughout, as it could only be, a torrent of accusations, details of enormities, with their clear proofs, and loud, and indignant, and destructive cries for punishment. The climax is, however, topped with an appeal to Roman Self-esteem, even in such a case as this. Gavius Cosanus had been bound, scourged with rods, and crucified, merely for asserting his privilege of Roman citizenship. This is sufficiently shocking ; but Cicero's chief horror is, that Cosanus was a Roman citizen ! "O liberty ! O sound once music to a Roman ear ! O sacred privileges of Roman citizenship ! once sacred ! now trampled upon ! Is it come to this ?

" Shall an inferior magistrate, who holds his power from the Roman people, within sight of Italy, bind, scourge, torture with hot irons, and at last put to the infamous death of the cross, a Roman citizen ! Shall neither the cries of innocence expiring in agony, nor the tears of pitying spectators, nor the majesty of the Roman commonwealth, nor the fear of the justice of his country, restrain the wanton cruelty of a monster, who, in confidence of his riches, strikes at the root of liberty, and sets mankind at defiance?"

May not the thunder of Cicero, and the example of Verres, have increased, all over the empire, that dread of scourging, or even binding a Roman citizen, which alarmed the chief captain who had bound St Paul, in ignorance of his privilege.

The storm from Cicero's lips which burst upon the head of Catiline, when he impudently entered the Senate, in the belief that he was yet undetected, has, as a storm, certainly no equal in the history of oratory. In a harangue reproaching a wretch like Catiline, there can scarcely be a nook where the higher sentiments can find shelter. The eloquence of high feeling would as little have suited Cicero's overwhelming denouncement of such a criminal, as it would in our day suit Bow Street and the Old Bailey. It is needless therefore to swell this paper, which threatens to be so long, with specimens from that unmitigated roll of thunder, which, while it carried the propensities, the whole animal brain, to fever and phrenzy, broke on a lower region than the seat of mercy, piety, poetry, and hope ; like the war of clouds we have seen midway below, when we have reached the clear and serene region of the mountain's summit.

Cicero spent his exile in Greece (for which of their benefactors did not the true barbarians of Rome, as well as of Greece, capriciously exile, and sometimes as capriciously restore?) in studying the various systems of Greek philosophy. He came back warm from the Porch, a professed, if not a real Stoic. Indeed, where is the example of any of these vague and impracticable theories really influencing a single Greek or Roman to a course of conduct which

the higher sentiments would approve? The leaven of that mixture of benevolence and pride, the Stoic philosophy, it has been observed, tended to refine his writings more than his speeches. Had he addressed Stoics in the Senate, the Forum, or the Campus Martius, his speeches would not have been suited to his audience. But it is just because the voluptuous, selfish, and cruel Romans had no sympathy with the human sentiments, that he found himself constrained to limit his address to the reigning inferior feelings. Even when he appeals to justice, to generosity, to compassion, as he did for his old preceptor, the poet Archias, the offering is debased by so large a proportion of the garbage which is the proper food of vanity and pride, that there is a positive profanation of the first-named elements, in placing them in such alliance.

"Nor ought we," says Cicero, and it forms the key-note of "his pleading, "to dissemble this truth, which cannot be concealed, but declare it openly; we are all influenced by the love of power, and the *greatest* minds have the greatest passion for glory."

So far Cicero; and so high, but no higher, Roman virtue.

4. We come now to the civilization of modern times, which excels that of Greece and Rome, much less in its intellectual, than in its moral qualities. Christianity has wrought this; Christianity from the Reformation; for it was previously abused, in the grossest manner, in the service of the propensities. It is a revelation of the supremacy of the moral sentiments. It came when the earth reeked with blood, when all was selfishness and cruelty. Its first voice on earth was "Fear not." Its first promise "Peace and good-will to men." It teems in every line and every precept with the essential benevolence of its Author. It has done much to mitigate the selfishness of the propensities; and it is only another proof of the strength of these, that it has not done more. But justice and good-will and veneration are now the foundations of many modern institutions; although still there is much to do; at least, however, these feelings are exercised, and there is an acknowledged delight in exercis-

ing them. They are recognised quite sufficiently for the purposes of the orator, and are the foundations of the highest rank of eloquence.

I wish it could be said with truth, that all modern oratory were addressed to the higher sentiments. Many a harangue in the British senate is disfigured by the propensities yet; many an oration on glory, and victory, and vengeance we yet hear; many more advocating national monopoly and individual selfishness, and not a few expounding and defending diplomatic cunning, lamentably mistaken for political wisdom. Nay, it should make a son of Britain blush to narrate it, we have heard many a speech of sordid Acquisitiveness and hard-heartedness, when not only mercy, but sound policy cried aloud on the other side of the question. Into such speeches, if the present theory be just, we need not look for specimens of eloquence. It would be a moral solecism to do so. But the higher sentiments assert their supremacy in many a speech in the British parliament, and do radiate the orator's brow with their own proper glory, a glory which never shone on the orators of antiquity. Perhaps the most ample scope for the eloquence of the higher sentiments ever offered to a deliberative body, was afforded to the British parliament, and nearly about the same time, by India and Africa. The independence of America had just been wrung from England, and the lesson thereby taught her, that the physical and moral laws of nature will not bend to a senseless national pride. The most enduring fame of Chatham was founded on the splendid manifestations of the higher sentiments which characterized his appeals in behalf of the injured Americans, contrasted with the paltry selfishness, pride, and petulance of his opponents, who thought it became a great people to persevere in injustice because they had begun, and redounded to the national honour to continue a contest, which for years had brought nothing but defeat and disgrace. The present age could not tolerate the puerile bravadoes and senseless

nationalities which were vented in parliament, not only in occasional effusions, but systematically by the ministers of the crown, as the *reasons* for prosecuting the war, in the seventh year of defeat, and a victorious French army actually in America. Events, however, in other words, the Creator's Eternal Will, that injustice shall not prosper, had settled the question. The belligerent generation were forced to swallow the bitter potion of moral humiliation; and their successors, who had none of the blame, now reap the benefit.

There was then time to look to the East, which, forgotten while all the selfish passions took the direction of the West, presented a picture of misgovernment quite unequalled in modern times. Enormous fortunes were amassed, or rather conjured up, in four or five years, by young men; who returned home young men to enjoy them. There was then not that degree of reflection or of light in the public mind to raise the slightest suspicion that such sudden wealth could not be honestly come by; that no adequate value could be given by a half-educated boy in the situation of a resident at a native court, for the half-million with which he returned to England; and that India, no more than other places, is paved with gold, but depends for its riches upon its agriculture and manufactures. While there was thus no sort of check upon public men in public opinion, it would appear incredible to the present generation, in which the sentiments have made a very considerable advance, not only what things were done, but systematically done in the last, as allowable and sagacious policy by every department of the government, from the first lord of the treasury down to the excise watchman at a soap-boiler's or a distillery. No! the jobbing, the oppression and extortion, the knavery, treachery, and falsehood, which were thought to be the very essence of clever policy, the grosser outbreaks even of which were sure to be screened by a vote of the legislature itself, would not now be believed. In treaties with the native powers in

India, what were called "vague articles" were inserted systematically, as dexterous and laudable strokes of policy, whereby the nullity of the whole treaty was meant to be produced.

Mr Burke, in his memorable speech on Mr Fox's India bill, pledged himself, in parliament, to establish, and did establish, three positions; 1st, That the India Company had sold every prince, state, or potentate with whom they had come in contact; 2d, That there was not a single treaty ever made by them which they had not broken; and, 3d, That there was not a single prince that ever put trust in the Company who was not utterly ruined; and that none were in any degree secure or flourishing, but in the exact proportion to their settled distrust of and irreconcilable enmity to the English name.

As it was the prevalence of the propensities that produced all this, the evil could only yield to powerful and incessant appeals to the higher sentiments. The former class of feelings were yet too strong to give a chance for immediate improvement, and votes on votes cleared the guilty, and thereby sanctioned the abuses. But the seed was cast into the earth—and let this ever encourage the upright legislator—the mustard-grain of justice and mercy was then sown, which now, like a great tree, shelters India from scorching oppression, and protects every family of her vast population. No more rapid fortunes! No more evasive treaties! No more plunder! No more of the insolent oppression of barbarous conquerors!

But the pestilence was rife when Burke directed his splendid eloquence against it. Quotation of isolated passages from Burke's speech on the India bill can neither do that fine effort of oratorical talent justice, nor illustrate satisfactorily the doctrine of this paper. The whole speech must be read to impress on the mind the superior sentiment which pervades it, and gives it a resistless moral force over all who are blessed with even an average endowment of moral feeling.

Nothing can be finer than the passage in which the orator prefers the Tartar to the English conquest of India; and adds, "Animated with all the avarice of age, and all the impetuosity of youth, they (the English) roll in one after another, wave after wave, and there is nothing before the eyes of the natives but an endless, hopeless prospect of new flights of birds of prey and passage, with appetites continually renewing for a food that is continually wasting."

The orator sketches rapidly, but powerfully, the demoralizing effect, even on young men of worth, of the means then held legitimate for amassing sudden and princely wealth, and the change of character to social virtue, on doubling the Cape homewards. "Here the manufacturer and husband-man will bless the punctual hand, that in India has torn the cloth from the loom, or wrested the scanty portion of rice and salt from the peasant of Bengal, or wrung from him the very opium in which he forgot his oppressions and his oppressor." After showing the difficulty of a reform, arising from the deep-rooted and wide-spread interests it would affect, he says, "You hurt those who are able to return kindness and resent injury, while you save those who cannot so much as give you thanks. All these things show the difficulty of the work, but they show its necessity too." Certainly nothing approaching to the exalted tone of justice and benevolence which pervades the whole of this speech was ever addressed either to the mobs or the councils of antiquity.

I am forced to refer to Mr Fox's published speeches for his share in the same animating debate.

The concern felt by Britain for her Asiatic subjects indicated a great advance of justice and mercy; but still the inhabitants of Hindostan were the subjects of Britain, not utterly beyond the sphere of her sympathies, and in some measure associated with her interests. But justice and mercy to Hindostan yielded in high character to justice and mercy to Africa; in the feelings and happiness of whose sable population Britain had no direct interest beyond the claims of pure benevolence and justice. It was a grand moral spectacle, a nation coming forward and confessing a national crime; vowing its cessation, and offering the most generous

reparation. Greece and Rome have nothing in their history like this national manifestation of the supremacy of the moral sentiments. When Wilberforce achieved a name for immortality by his magnificent position, "that the slave-trade is contrary to justice, humanity, and sound policy," what aspirations of oratorical distinction, what ambition to manifest the higher sentiments, arrayed in all the pride and grace of human speech, must he not have excited in many a generous bosom in that memorable senate! Mr Fox's speech may well be called a torrent of indignation at the impudent selfishness and injustice, and the merciless cruelty of the slave-trade. For this also we must refer to his published speeches.

But no oration for the abolition surpassed Mr Pitt's, delivered on the 2d of April, 1792, in the power and splendour of the higher sentiments. It has been called insincere, because he did not follow it up with his paramount ministerial influence, and *carry* the measure he so eloquently advocated. It has been defended, and well defended, on the ground that it should never be said, that the selfish feelings of political subserviency should have any share in a vote which should be the spontaneous offering of the nation's representatives in the nation's name. None can read the speech, and for an instant believe it insincere. But, at any rate, that question has no place here; for, even were the speech separated from the speaker, it is an oration throughout addressed by the highway of the reflecting powers to the noblest feelings of human nature. I can only afford room for its conclusion:—

"If we listen to the voice of reason and duty, and pursue this night the line of conduct which they prescribe, some of us may live to see a reverse of that picture from which we now turn our eyes with shame and regret. We may live to behold the natives of Africa engaged in the calm occupations of industry, in the pursuits of just and legitimate commerce. We may behold the beams of science and philosophy breaking in upon their land, which at some happy period, in still later times, may blaze with full lustre, and, joining their influence to that of pure religion, may illuminate and invigorate the most distant extremities of that vast continent."

Our own immediate day finds no falling off in the high-toned eloquence of the sentiments. I cannot withhold one instance, the magnificent peroration of Mr Brougham's late speech on the state of the law of England; and I am glad to be able to show, by means of the reports, not only the orator's manifestations, but those of his hearers, from the reported effect upon them of the climax of benevolence and justice which he brought to bear upon them.

"A great and glorious race is open before you; you have it in your power to make your names go down to posterity with the fame of more useful importance attached to them than any parliament that ever preceded you. (*Cheers.*) You have seen the greatest victor of the age, the conqueror of Italy and Germany, who, having achieved triumphs more transcendent than any upon record, said, 'I shall go down to posterity with the Code in my hand.' (*Loud cheering.*) You have beaten that warrior in the field,—try to rival him in the more useful arts of peace. (*Cries of hear, hear.*) The glories of the regency, gorgeous and brilliant as they were, will be eclipsed by the milder and more beneficent splendour of the king. (*Great and continued cheering.*) The flatterers of the Edwards and the Henries compared them to Justinian; but how much more justly may it not be applied to our own sovereign, when to his other glories this shall truly be added. (*Cheers.*) It was said by Augustus, that he found Rome of brick and left it of marble,—an honourable boast, and one which veiled many of the cruel and the tortuous acts of his early course;—but how much higher and prouder would be the boast of our king, to have it said, that he found law dear, and left it cheap,—(*cheers,*) that he found it a sealed book, and left it an open letter,—that he found it the patrimony of the rich, and left it the security of the poor,—that he found it a two-edged sword in the hands of the powerful, and left it a staff for the comfort of the feeble and the friendless.—(*Loud and long-continued cheering.*)"

There remains yet another eloquence, which appeals to a yet loftier combination of the human sentiments than the speaker at the bar or in the senate is almost ever called to address; an eloquence utterly unknown to the ancients, and beyond all question paramount among the moderns,—the eloquence of the Pulpit. There are stops in the human instrument upon which the pleader or the senator rarely lays his hand; but the preacher is familiar with the whole com-

pass, and falls short of the spirit of his message, if he fail to avail himself of the entire of its magnificent capacities. If he mellow not the firm touch of Justice with the full swell of Benevolence; if he temper not the note of Fear with all the melody of Hope; if he wake not the loud peal of Wonder, or give not their turn to the milder and richly-varied harmonies of Ideality; if, in fine, he dwell not on the solemn key of Veneration, to which all the other harmonies respond as the regulating diapason of all their combinations, till the breathless listener thrills in every nerve, and sheds the pure tear of elevated humanity; if he fail in aught of these, the preacher does not command the whole range of that lofty vantage-ground, the pulpit.

When we attend to the misdirected and spurious Veneration which here and there deforms an oration of antiquity, it is at once clear to us that the deep feeling of *genuine* Veneration is a grand addition to the structure of modern eloquence, and the chief-corner stone of that edifice of progression in excellence which it is the purpose of this paper to develop. Veneration is the very fulcrum of that lever which the preacher wields; and it is a power all his own, which, added to his command of all that other orators employ, gives its ascendancy to his over all other discourse. From Veneration emanates the eloquent solemnity of his prayers, the power of his adjurations and appeals, and all that stillness and awe which directs every eye heavenward, as if the Creator himself were speaking through his gifted servant. "When the Master speaks," said Massillon, as a thunder-storm almost drowned his voice, and he paused till one peal had passed, only to pause again as another rolled on, "When the Master speaks," said he, during an interval of death-like stillness, "it becomes the servant to be silent." No one endowed with an average portion of the faculty can hear this, and require to ask what is the eloquence of Veneration; that eloquence which at once lifts the soul to God's throne, and humbles it at his foot-stool; points to

Omnipotence, and then marvels what is man that Omnipotence "is mindful of him, and deigns to visit him?"

This paper is already too long for either extended or numerous specimens of pulpit-eloquence, as varied by the sentiments or combinations of sentiments addressed. A very few from Chalmers shall suffice. As he avails himself of the *whole* powers of the pulpit, and to a pitch not exceeded by any speaker in any other field of eloquence, on the principles on which this analysis is built,—notwithstanding settled notions and great names, both of which Phrenology is apt to weigh,—I am led to estimate his composition more highly than that of any orator of whom I have yet spoken.

There is an eloquence of Ideality, and of Ideality and Wonder, distinct from the eloquence of the other sentiments. Some speakers are, by their organization, determined to the one and not to the other; but Chalmers, although he sometimes appears to address Ideality alone, or with Wonder combined, without the other sentiments, is virtually combining all the sentiments, and producing the deepest moral and religious effect, by the union. Of Veneration, as the key-note, he never loses sight. Although Ideality, for example, predominates, Benevolence Hope and Veneration beam forth in every thought of the following beautiful conclusion of a discourse on "The expulsive power of a new affection," in which the preacher shows the insufficiency of arguments drawn from the common topic of this world's worthlessness, and the necessity of offering another, distinct, and much higher attachment:

"Conceive a man standing on the margin of this green world; and that, when he looked towards it, he saw abundance smiling upon every field, and all the blessings which earth can afford scattered in profusion throughout every family; and the light of the sun sweetly resting upon all the pleasant habitations, and the joys of human companionship brightening many a happy circle of society; and that on the other side, beyond the verge of that goodly planet, he could descry nothing but a dark and fathomless unknown. Think you that he would bid a voluntary adieu," &c.

"But if, during the time of this contemplation, some happy island,
 "of the blest had floated by, and there had burst upon his senses
 "the light of its surpassing glories, and its sounds of sweeter melody;
 "and he clearly saw that there a clearer beauty rested upon every
 "field, and a more heart-felt joy spread itself among all the fa-
 "milies; and he could discern there a peace and a piety, and a be-
 "nevolence, which put a moral gladness into every bosom, and
 "united the whole society in one rejoicing sympathy with each
 "other, and with the beneficent Father of them all. Could he
 "farther see that pain and mortality were there unknown, and,
 "above all, that signals of welcome were hung out, and an avenue
 "of communication was made for him; perceive you not that what
 "was before the wilderness would become the land of invitation,
 "and that now the world would be the wilderness? What un-
 "peopled space could not do, can be done by space teeming with
 "beatific scenes and beatific society. And let the existing ten-
 "dencies of the heart be what they may to the scene that is near
 "and visibly around us, still, if another stood revealed to the pro-
 "spect of man, either through the channel of faith, or the channel
 "of his senses, then, without violence done to the constitution of his
 "moral nature, may he die unto the present world, and live to the
 "holier that stands in the distance away from it."

Ideality and Wonder, seasoned with Cautiousness, and
 finely sustained by Veneration, unite to shed a glory alto-
 gether peculiar around those exciting productions, the As-
 tronomical Sermons, which, when delivered, wound up these
 engrossing feelings to rapture, in a crowded audience, in
 which mingled a large portion of the rank, the talent, and
 the taste of the land.* After expatiating in terms of the
 sublimest eloquence on the *immensity* of creation as revealed
 by the Telescope,—80 millions of fixed stars, and every star
 a sun with its retinue of planets; and what is discovered,
 baffling imagination as it does, being in all probability a re-
 latively insignificant part of the suns and systems that roll
 in infinity; so insignificant, that it might be annihilated
 without being missed in creation,—the orator changes the
 direction of his hearers' Wonder, and, by a magic word,
 unfolds the yet more bewildering theme of the *minute* in

* The substance of these discourses formed a sermon preached before his
 Grace the Lord High Commissioner to the General Assembly; the Judges,
 Barons, and other public functionaries present.

creation, unfolded, and inferred to be infinite, by the discoveries of the Microscope ! It is said by those who heard him, that such was the delight excited by the prospective grasp, which every mind took in, of a creation yet to be displayed, when the microscope was announced, that the solemnity of the place alone restrained a shout of applause. The pit-fall silence was for an instant broken by the stir of a new and unexpected and most intense emotion, and all was again still and breathless attention. "About the time of the Telescope's invention, another instrument was formed, which laid open a scene no less wonderful to reward the inquisitive spirit of man. This was the Microscope. The one led me to see a system in every star ; the other leads me to see a world in every atom. The one taught me that this mighty globe, with the whole burden of its people and of its countries, is but a grain of sand on the high field of immensity ; the other teaches me that every grain of sand may harbour within it the tribes and the families of a busy population. The one told me of the insignificance of the world I tread on ; the other redeems it from all its insignificance ; for it tells me, that in the leaves of every forest, and in the flowers of every garden, and in the waters of every rivulet, there are worlds teeming with life, and numberless as are the glories of the firmament. The one has suggested to me, that beyond and above all that is visible to man, there may be fields of creation which sweep immeasurably along, and carry the impress of the Almighty's hand to the remotest scenes of the universe ; the other suggests to me, that within and beneath all that minuteness which the aided eye of man has been able to explore, there may be a region of invisibles ; and that, could we draw aside the curtain which shrouds it from our senses, we might there see a theatre of as many wonders as astronomy has unfolded ; a universe within the compass of a point so small as to elude all the powers of the microscope ; but where the wonder-working God finds room for the exercise of all his attributes ; where he can raise another mechanism of worlds, and fill and animate them all with the evidences of his glory."

The favourite sentiment of the lofty and generous mind of Chalmers is Benevolence ; and he loves to accompany it with all the beatitudes and buoyances of Hope. Infinitely varied by the endless illustrations and amplifications of his inexhaustible genius, surrounded and aided and exalted by all the brilliancy of all the other sentiments, Benevolence is the most cherished inmate of his bosom, and out of its full-

ness his mouth speaketh the most eloquently. Kindliness, gentleness, and mercy, are held by him to be the only irresistible engines of man's power over man. A debate on a question where feeling ran high had been conducted and concluded in the General Assembly of the church of Scotland, with that mutual forbearance and courtesy which, of all men, most become divines. The feeling expanded in its most fitting receptacle the heart of Chalmers; and, with a flight of Ideality too high for any wing but his own, he thus burst forth, in peroration of a splendid tribute to his favourite sentiment: "Were there, Moderator, between
"that side of the house and this a wall of brass, fifty cubits high
"and fifty cubits broad, give me the courtesy and the kindness of
"benevolence, and I will overleap it or undermine it."

But the highest application of his principle of the power of gentleness that gifted preacher reserved for the contemplation of the votaries of religious zeal. Polemical controversy had run high in the north of Ireland, and the *odium theologicum* had, with its baleful influence, gone far to stifle all the charities of neighbourhood, when Chalmers appeared at Belfast; and, at the opening of the Presbyterian chapel there, the disputants and their partizans flocked to listen to the most powerful preacher the world has yet seen, as he gave forth for his text the invaluable precept; "The wrath
"of man worketh not the righteousness of God."

To illustrate "the way in which the great message from
"heaven to earth may be darkened, and altogether transformed out of its native character by the conflict and controversy of its interpreters," he takes the analogy of a message of free and unqualified kindness from some earthly superior, handled by the bearers of it in the same way. The message of good-will is, moreover, put in writing, for greater security; but this intended advantage raises up "a
"whole army of expounders," who, "in the pride and heat
"and bitterness of argument, fall out among themselves," to the utter destruction of the mild and merciful embassy of

peace by which the contentions are stirred, and who pervert it, each to a message of vengeance on all who do not interpret it precisely as he does. "It is thus," he continues, "that, by the angry and lowering passions of these middlemen, an obscuration might be shed on all the goodness and the grace which sit on the brow of their superior; and when stunned, in the uproar of their sore controversy, with the challenge and the recrimination and the boisterous assertion of victory, and all the other clamours of heated partizanship, that these may altogether drown the soft utterance of that clemency whereof they are the interpreters, and cause the gentler sounds that issue from some high seat of munificence and mercy to be altogether unheard."

After showing the undoubted character of benevolence, of mercy, and love to man, with no limitation of men, with which the Christian message is fraught, all which is "asserted" in its very terms, the preacher continues, after his manner of rich amplification, to contrast this serene and kindly and inviting aspect with the cloudy turbulence and forbidding frown of sectarianism.

"It is thus that the native character of Heaven's message may be shrouded, at length, in subtle but most effectual disguise, from the souls of men; and the whole spirit and design of its munificent Sovereign be wholly misconceived by his sinful, yet much-loved children. We interpret the Deity, by the hard and imperious scowl which sits on the countenance of angry theologians; and in the strife and the clamour of their fierce animosities, we forget the aspect of Him who is on the throne, the bland and benignant aspect of that God who waiteth to be gracious." Dr Chalmers expresses his regret, "that men of highest respect in the Christian world have done grievous injury to the cause;" that Calvin himself incalculably weakened his own power, by declaring the message of mercy "not in the spirit of gentleness, but in the spirit of an incensed polemic, and with that aspect which sits on his pages of severe and relentless dogmatism." That violence and vituperation by which his Institutes are so frequently deformed, never occur, we venture to affirm, but with an adverse influence on the minds of his readers, in reference to the truth which he espouses. In other words, that truth which, when couched in the language and accompanied with the calls of affection, finds such welcome into the hearts of men, hath brought upon its exponents the reaction of a stout indignant hostility, just because of the intolerance wherewith it has been proposed by them."

"Let us lift ourselves," he proceeds, "above these turbid elements of earth, and be firmly and erectly confident of benevolence in Heaven. Yonder is the region of light, and of undoubted love;

"and whatever the mists or the darkness may be of this lower world,
 "there is free, generous, unbounded welcome to one and all in the
 "courts of the Eternal. The sun of our firmament is still gorge-
 "ously seated in fields of ethereal beauty and radiance, when veiled
 "from the sight of mortals by the lowering sky that is underneath.
 "And so of the shrouded character of the Godhead, who, all placid
 "and serene in the midst of elevation, is often mantled from human
 "eye by the turbulence and the terror of those clouds which gather
 "on the face of our spiritual hemisphere." "There may be
 "nought to gladden in the wrathful and the warring controversies
 "of the men who stand betwixt us and heaven, but in heaven itself
 "are notes of sweeter and kindlier melody; and well may we assure
 "ourselves of the gratulation that is awakened there over every
 "sinner who turns to God." "In a word, it is when the bearer of
 "this message from God to man urges it upon his fellow-sinners
 "in the very spirit which first prompted that message from the
 "upper sanctuary,—it is when he truly represents, not alone the
 "contents of Heaven's overtures, but also that heavenly kindness by
 "which they were suggested,—it is when he entreats rather than
 "when he denounces, and when that compassion, which is in the
 "heart of the Godhead, actuates his own,—it is when standing in
 "the character of an ambassador from him who so loved the world;
 "he accompanies the delivery of his message with the looks and the
 "language of his own manifest tenderness,—it is then that the
 "preacher of salvation is upon his best vantage-ground of command
 "over the hearts of a willing people; and when he finds that chari-
 "ty and prayer and moral earnestness have done what neither
 "lordly intolerance nor even lordly argument could have done, it
 "is then that he rejoices in the beautiful experience, that it is some-
 "thing else than the wrath of man which is the instrument of work-
 "ing the righteousness of God." "It was in love to man that this
 "wondrous dispensation was framed. It was kindness, honest,
 "heartfelt, compassionate kindness, that formed the moving principle
 "of the embassy from Heaven to our world. We protest, by the
 "meekness and the gentleness of Christ, by the tears of Him who
 "wept at Lazarus' tomb, and over the approaching ruin of Jerusa-
 "lem; by every word of blessing that he uttered, and by every foot-
 "step of his wondrous visitor over the surface of a land, on which
 "he went about doing good continually,—we protest in the name
 "of all these unequivocal demonstrations, that they do Him injustice
 "who propound his message in any other way than as a message of
 "friendship to our species. He came not to condemn, but to save;
 "not to destroy, but to keep alive. And he is the fittest bearer, he
 "the best interpreter, of these overtures from above, who urges them
 "upon men, not with wrath and clamour, and controversial bitter-
 "ness, but in the spirit of that wisdom which is gentle and easy to
 "be entreated, and full of MERCY."

It were to weaken the effect of such glorious manifesta-
 tions of the highest sentiments of humanity, such truly

Christian exclusion of the *propensities* from the holy ground of religion, to make a single comment upon them. Set them but in contrast to the harangues of the Tonga islanders,—nay of the Greeks and Romans, and the theory of eloquence attempted in this paper is complete.

It was soon discovered, that the views now submitted were far indeed beyond the limits of an essay. Selection and exclusion, in the mass of matter that offered, were the chief difficulties. The compass of the subject is immense, and involves, I would say a revolution in the whole kingdom of literature; for it presents an instrument of criticism which will work with the precision of the mathematics, and bid away from its presence all the vague and inconsistent verbiage which has hitherto passed by that name. Nay more, it may and will indirectly produce the most important moral effects on society, by adding to the practical efficacy of that chief glory of Phrenology, the doctrine of the Supremacy of the Moral Sentiments.

ARTICLE II.

Forces Productives et Commerciales de la France, par le Baron Charles Dupin. 2 tomes 4to, Paris 1827.

THIS work contains facts relative to the population of France which, if accompanied by an account of the type and development of their brains, would be highly interesting and useful. The latter information is not given, but we nevertheless advert to the mental manifestations, with a view to solicit attention to the organization. The Foreign Quarterly Review, No II. contains an analysis of the work, which first attracted our notice, and having since procured the original,

and compared it with the Review, we find the abstract not only perfectly correct, but presented in such a precise and condensed form that we should in vain endeavour to equal it, either by translating Dupin at large, or framing a new analysis ourselves. We shall therefore use the text of the Review without hesitation or farther apology.

"In countries where every person is educated, the children at school compose about $\frac{1}{3}$ or $\frac{1}{2}$ of the population. This is nearly the proportion in Scotland, and in some of the Swiss cantons. In England, according to M. Dupin, it is about $\frac{1}{10}$, in Bohemia $\frac{1}{12}$, in Holland $\frac{1}{14}$, in Austria $\frac{1}{18}$, in Prussia $\frac{1}{20}$, while in France it is only $\frac{1}{20}$. France, as M. Dupin observes, is, in point of education, below Austria and Ireland, below every country in Europe, except the Peninsula, Russia, and Turkey." The government devotes £120,000 on the Royal Colleges, which educate about 15,000 pupils, while only £2000 are bestowed on the primary schools, which educate one million, and which ought to educate three millions.

"To the evil of deficient means of education is added that of a great misapplication of time and labour, from the faulty system pursued. In France, as in England, the dead languages are taught too much and the positive sciences too little. The son of a wealthy manufacturer, M. Dupin observes, may remain from the age of 12 to 20 in one of the Royal Colleges, and leave it perfectly ignorant of chemistry, mechanics, natural history, and every branch of knowledge, that might qualify him to conduct with skill the establishment of which he is one day to be the proprietor." M. Dupin thinks that "the 40,000 ecclesiastics scattered over the surface of the country might be usefully employed in giving the rural inhabitants more correct ideas as to the principles on which the health and vigour of the domestic animals and of man himself depend, the proper treatment of infants, the influence of local situation, the means of protection against epidemics, &c. The neglect of vaccination, and the consequent mortality among children from the small-pox, show that ignorance and prejudice are still lamentably prevalent in all parts of the kingdom."

The work contains much minute, interesting, and valuable information relative to the productive and commercial powers of France; but the leading object of it is to excite a spirit of industry and enterprise in the "people of the south of France, by contrasting their apathy, poverty, and backwardness, with the wealthy and improved condition of the people of the

" north. If a line is drawn from St. Malo to Genève, it divides the kingdom into two unequal parts, of which the northern contains 32 and the southern 54 departments. The population of these two parts, says M. Dupin, differs more from each other in wealth, industry and intelligence than the people of France, taken collectively, differ from the people of the British isles. After some other preliminary remarks, he proceeds to describe, in detail, the 32 departments of the north. To obtain a standard by which to judge of the state of each department individually, he takes the aggregate amount of territorial surface, population, taxes, raw produce, manufactures, &c. for all France, from actual or estimated returns, and, dividing each of their aggregates by the number of departments, he obtains the area, population, taxes, &c. of an imaginary mean department, which represents the average of the whole kingdom, and with this he compares each of the 32 departments in succession. He then brings the results together, and compares the 32 departments of the north collectively with the 54 departments of the south."

This comparison embraces population, territorial revenue, the proportions of the different species of crops, of wine, of iron, horses, wool, gross and neat produce of agriculture, &c. The following table, he informs us, is grounded on details published by the Minister of Finance. For every 100 francs of revenue, &c. for the whole country, the proportions for the north and the south are—

N. France. S. France. All France.

Private revenue, derived from industry (excluding agriculture)	59½	40½	100
Public revenue, from liquors, tobacco, gunpowder, &c.	60	40	100
Do. do. from stamps and registration	60½	39½	100
Do. do. from patents	61½	38½	100
Do. do. from the posts	61½	38½	100
Scholars at the primary schools	66	34	100
Productive force for equal quantities of ground	66	34	100

One cannot help being struck, as M. Dupin observes, with the very uniform proportion which is here preserved in the two sections of the country among the various branches of revenue which depend on skill, activity, and capital, on every source of wealth in short, except mere amount of territorial

surface. It is remarkable, too, that education, and of course knowledge, follows exactly the same law.

The north of France is not only much farther advanced in industry at present than the south, but it is proceeding in the career of improvement with much greater rapidity, as is proved by the following table, which shows the increase on different branches of the public revenue in six years.

Addition to the Public Revenue from 1820 to 1826.

	N. France.	S. France.	All France.
Patents	2,303,225 francs	1,122,246	3,425,470
Registration and stamps	17,612,945	7,524,689	25,137,593
The posts	2,598,489	2,064,465	4,662,953
Customs	17,576,114	10,067,182	27,643,266
Indirect taxes	13,227,615	4,766,083	17,993,898
	<hr/>	<hr/>	<hr/>
	53,318,596	25,544,584	78,863,180
Proportional increase of revenue	65	35	100

But when the relative numbers of the population are taken into account, the difference is still more striking, as the following table will show :—

	N. France.	S. France.	All France.
Each million of inhabitants in six years have increased the population	57,195	35,182	44,700
Have sent to school (children)	56,265	21,751	36,764
Have increased the public revenue by their industry	francs 3,902,366	1,424,206	2,495,670

According to the last official account presented by the

University of France, the distribution of primary schools was as follows:—

	N. France.	S. France.
Communes having primary schools	15,701	8,669
Communes destitute of ditto	4,441	9,668

Thus more than one-half of the communes in the south are destitute of the means of elementary education.

	N. France.	S. France.	All France.
Pupils in the Royal Colleges	4,686	5,418	10,054
Secondary schools	26,950	24,088	50,988
Primary ditto	740,846	375,961	1,116,777

The greater number of pupils from the south at the Royal Colleges, M. Dupin attributes to the number of bursaries at the colleges in that part of France. "The people of the south," he observes, "have a prodigious talent for obtaining *des bourses de l'état*!" "Plut a Dieu," he adds, "qu'ils eussent la même ardeur et la même dextérité pour obtenir des écoles primaires!"

The university distributes annually a number of prizes and *accessits** among the colleges of Paris and Versailles, and the Almanack of the University contains the names of those who gain them, with the place of their birth. Setting aside the department of Paris, in order that no undue advantage may be given to the north, M. Dupin finds that the number gained by pupils belonging to the 31 departments of the north and the 54 of the south to be as follows:—

North 107.

South 36.

Part of this difference may be ascribed to the greater distance of southern departments from the capital; but of the 143 rewards voted, 37 were prizes and 106 *accessits*, and of these 37 prizes 33 were carried away by the pupils from the

* The pupil who has the highest number of votes next to him who gains a prize is considered as having obtained a certain distinction, which is called an *accessit*.

north, and only four by those from the south; so that in the colleges, in point of fact, the prizes go to the northern pupils, and the accessits to the southern.

Of the 65 members of the Academy of Sciences (who are impartially chosen from the *savants* of the whole kingdom), the 32 departments of the north have afforded 48, and the 54 departments of the south only 17!

The Record of *Brevets*, or, as we call them, patents, for new inventions and discoveries in the arts, &c., in the 34 years, from 1791 to 1825, presents the following result:—

The north 1699.

The south 413.

Exhibitions of the products of industry are made (every four years we believe) in France, and prizes are given for the most improved or perfect specimens. In the exhibition of 1819 the prizes were awarded as follows:—

Medals of gold, silver, or bronze. North 293. South 107.

“ Thus, in whatever point of view we consider the two parts of France, whether in relation to their agriculture or their commerce; at whatever stage of life we contemplate the population, in tender infancy, when the A B C is the Encyclopædia, at the colleges, the polytechnic school, or the academy of sciences, or as regards invention in the arts, or the national prizes for industry, every where we find a difference between the two parts, which is analogous and almost always proportional. In the eyes of men who know how to compare effects with causes, this constant uniformity of results, this superiority of every kind in favour of the part of the kingdom where popular instruction is most developed, demonstrates clearly the advantage of that instruction in promoting trade, the arts, the sciences, and private and public wealth.”

M. Dupin holds the backwardness of the people in the south of France to be entirely the consequence of ignorance, and not to spring from any defect of natural talent. To paint their inferiority as it were to the eye, and to affront them into some exertions to wipe away the reproach of ignorance, he has appended to his work a map representing the state of education in France. In this map, the proportion which the children at school bear to the whole population is marked in each department, and the surface of the

department is made lighter or darker by varying tints of engraving, in proportion as the amount of education is greater or less. In a well-educated nation, the children at school form about one-eighth or ninth part of the whole inhabitants. None of the departments of France reach this point, but those of the north make the nearest approximation. In some of these it is $\frac{1}{10}$, $\frac{1}{12}$, $\frac{1}{14}$, &c., up to $\frac{1}{18}$. In the departments of the south it varies from $\frac{1}{18}$ up to the fearful proportion of $\frac{1}{28}$, which has been very properly typified in the map by a surface absolutely black, as if knowledge had there suffered a total eclipse. A more entire privation of the means of instruction is probably not to be found in Siberia or Turkey!

The following are examples of several departments,
North and East of France.

		Proportion of entire population at school.
Department of Pas-de-Calais, are at school		1-14th part
Somme,	_____	1-12
Oise,	_____	1-11
Nord,	_____	1-20
Aisne,	_____	1-13
Ardennes,	_____	1-13
Meuse,	_____	1-14
Moselle,	_____	1-10
Marne,	_____	1-10
Aube,	_____	1-10
Haute Marne,	_____	1-11
Meurthe,	_____	1-14
Vosges,	_____	1-18
Bas Rhin,	_____	1-11
Haut Rhin,	_____	1-18

Divide by 15 | 194

Average for these departments, 13 $\frac{1}{4}$

**West and interior of France, commencing at Cape Finis-
terre, and passing to the Haute Loire.**

		Proportion of entire po- pulation at school.
Department of Finisterre,	are at school	1-199th part
Côtes du Nord,	_____	1-152
Morbihan,	_____	1-222
Ille et Vilaine,	_____	1-111
Loire inferieure,	_____	1-132
Mayenne,	_____	1-78
Maine et Loire,	_____	1-90
Sarthe,	_____	1-60
Loir et Cher,	_____	1-132
Indre et Loire,	_____	1-229
Indre,	_____	1-74
Cher,	_____	1-82
Creuse,	_____	1-74
Allier,	_____	1-140
Puy de Dôme,	_____	1-180
Cantal,	_____	1-209
Haute Loire,	_____	1-268

Divide by 17 | 2433

Average of population attending schools in	}	_____
17 middle departments 143d part of the		143,7
whole,		

Southern Departments.

		Proportion of entire pe- pulation at school.
Department of Gironde,	are at school	1-63d part
Landes,	_____	1-26
Basses Pyrennées,	_____	1-15
Hautes Pyrennées,	_____	1-16
Gers,	_____	1-47

Carry forward

Brought forward		
Lot et Garonne,	————	1-40th
Tarn et Garonne,	————	1-66
Haute Garonne,	————	1-50
Arriège,	————	1-128
Tarn,	————	1-82
Aude,	————	1-41
Pyrennées Oriental,	————	1-66
Hérault,	————	1-31
Bouches du Rhône,	————	1-40
Var,	————	1-42

Divide by 15 | 668

Average of population attending schools in	}	————
15 southern departments, 1-44th part of		
the whole,		

44 $\frac{4}{11}$

“ The inspection of this spotted map should call up a blush in the face of every public man in France. When we consider the nursery of ignorance and barbarism which has been thus suffered to grow up in the centre of the kingdom, while its rulers were lavishing millions on works of luxury, vanity, or ostentation, we can scarcely find words to express our indignation at such a profligate neglect of duty on the part of the government, and such a stupid apathy on the part of the people.

“ We concur with M. Dupin in thinking, that the want of primary schools is the first want of the country ; but we would not attribute the poverty and apathy of the people of the south entirely to this cause, nor do we anticipate that a better education will raise them completely to a level with the people of the north. We believe that there is an original diversity of character among nations as well as individuals, which produces important effects on their conduct and institutions. The spirit of industry and improvement is more active in England than in any other country ; yet

the English are by no means so well educated as the people of many other European states. Bohemia has more schools than Rhenish Germany or northern France, though it is infinitely behind these countries in civilization. And, generally speaking, though the most industrious nations of Europe are better educated than the others, the degree of industry is seldom in proportion to the amount of instruction; and diffused systems of education, where they do exist, are perhaps as often the consequence as the cause of the mental and bodily activity which accompanies them. Now, with regard to France, it is worthy of remark, that the northern departments, which are the great seats of intelligence and industry, are exactly the districts which are inhabited by a people of German and Norman extraction; that is, by a branch of the great Gothic family which occupies Germany, Sweden, Holland, Belgium, England, and the Lowlands of Scotland,—the states which are confessedly at the head of modern civilization. The Gothic race has less vivacity and sensibility than some of the southern races, but it greatly surpasses them all in habits of order, rectitude of judgment, perseverance, and decision of character. On the other hand, the departments in the centre of France, where ignorance and rudeness are most prevalent, were exactly the ancient seat of the Celts. In the western part of this tract the Celtic race preserves its original language; and throughout the whole of its extent we have every reason to believe that the basis of the population is Celtic still. The inhabitants of these districts, in short, are at bottom of the same family with the Welsh, the Irish, and the Scotch Highlanders,—tribes which, even at this day, are much inferior to the Gothic race in aptitude for civilization."

To these judicious remarks of the reviewer we may add, that the great characteristic of the German head is, that the reflecting organs are large. Individuality large; Eventuality and the other knowing organs smaller; the organs of Benevolence, Ideality, Wonder, Firmness, and Conscien-

human word and deed. Happening lately to notice the motto of a coat of arms on a carriage in the street, which spoke plainly a particular sentiment, it chanced to occur to us, that, as it is likely that the choicer of a family motto speaks out the prevailing feeling of the mind, the family character, at least its founder's, in other words, the original predominating family organization, might be inferred from the armorial motto; and the accompanying crest, which is generally a hieroglyphic or emblematical design, expressing the same sentiment with the motto itself. We thought it probable that the books of heraldry would show a great preponderance of selfish over social feeling in the earlier mottoes. The founders of families, in rude times, would of course be proud of the qualities by which they rose, and although these were seldom just and merciful, the motto and crest would hold out the laconic boast to the world. We expected that next to the boasters would come the worshippers, the *præux chevaliers* of chivalry, who bent the knee alike to their king, their mistress, and their God; and that of sentiments not selfish, Veneration would figure in heraldic blazonry; and Hope, that never-failing impulse of the ambitious. We did not expect more than a sprinkling of justice, and little, if any, mercy at all.

With these anticipations, it was interesting to open heraldic works, both English and Scottish, and observe how far we were correct. We were nearly so, and precisely in the above order. With the exception of Firmness, which forms an element in many mottoes,—and which may mingle in a combination of faculties for ill as well as for good,—the great majority ascend no higher in the scale of dignity than the twelve lowest faculties, embracing the animal propensities and lower sentiments. A considerable number ascend to Veneration—not just so many to Hope—more than we expected to Conscientiousness—and a very few to pure Benevolence.

Beginning with the lowest class of feelings, we find these in some mottoes in their unmingled degradation. For ex-

Self-esteem and Firmness are also generally very large. Villèle and Carnot are natives of Gascony.

About Dijon a Teutonic or Gothic tribe seems to have settled. The moral and intellectual organs are generally well developed, and a great many men of talent have appeared there.

About Lyons the face presents a round form, and the brain is large at Constructiveness and Individuality. They are famous in the arts; but Order and Conscientiousness are small, and lying and boasting are features of their mental character.

The Celts have maintained themselves in some places near the German frontier. About twenty leagues from Coblenz, up the course of the Rhine, but somewhat into France, a Celtic population presents itself inferior in cerebral organisation to the Gothic with which it is surrounded.

These items of information, we are aware, are exceedingly general and imperfect; but they are presented merely to solicit the attention of travellers to this most interesting and important branch of phrenological inquiry. If some small portion of the labour and money expended in presenting the public with elaborate descriptions and drawings of the faces and postures of different countries were bestowed in collecting accurate delineations of their heads or their actual skulls, and this information were combined with such details as those furnished by M. Dupin, human improvement would be incalculably accelerated.

ARTICLE III.

PHRENOLOGICAL REMARKS ON THE MOTTOS OF ARMORIAL BEARINGS.

A HABIT of thinking phrenologically gives a tendency to reduce all the phenomena of life and human affairs to their elements in the primitive and well-distinguished springs of

human word and deed. Happening lately to notice the motto of a coat of arms on a carriage in the street, which spoke plainly a particular sentiment, it chanced to occur to us, that, as it is likely that the choicer of a family motto speaks out the prevailing feeling of the mind, the family character, at least its founder's, in other words, the original predominating family organisation, might be inferred from the armorial motto; and the accompanying crest, which is generally a hieroglyphic or emblematical design, expressing the same sentiment with the motto itself. We thought it probable that the books of heraldry would show a great preponderance of selfish over social feeling in the earlier mottoes. The founders of families, in rude times, would of course be proud of the qualities by which they rose, and although these were seldom just and merciful, the motto and crest would hold out the laconic boast to the world. We expected that next to the boosters would come the worshippers, the *proux chevaliers* of chivalry, who bent the knee alike to their king, their mistress, and their God; and that of sentiments not selfish, Veneration would figure in heraldic blazonry; and Hope, that never-failing impulse of the ambitious. We did not expect more than a sprinkling of justice, and little, if any, mercy at all.

With these anticipations, it was interesting to open heraldic works, both English and Scottish, and observe how far we were correct. We were nearly so, and precisely in the above order. With the exception of Firmness, which forms an element in many mottoes,—and which may mingle in a combination of faculties for ill as well as for good,—the great majority ascend no higher in the scale of dignity than the twelve lowest faculties, embracing the animal propensities and lower sentiments. A considerable number ascend to Veneration—not just so many to Hope—more than we expected to Conscientiousness—and a very few to pure Benevolence.

Beginning with the lowest class of feelings, we find these in some mottoes in their unmingled degradation. For ex-

ample, mere Destructiveness, comes forth in such legends as these—*Strike—Strike hard—Spurs, delight—Grips, fast*.* Destructiveness with Combativeness dictated—*Through—I dare—Fortiter*—an arrow for crest, with—*It lacks not a bow—I make siccar*, with a head, and dagger for crest, adds Caution to Destructiveness, and was the murderous boast of Kirkpatrick, who re-entered the church of the Dominicans at Dumfries to finish the Cummin, whom Bruce, under Veneration, said, he doubted he had killed—“*You doubt! I’ll make siccar*.” Acquisitiveness, Secretiveness, and Caution, suggested the grovelling family-motto of *Lock siccar*; while *Thou shalt want, ere I want*—aspires no higher than the ambition of the strongest hog in a swine-stye. However this unseemly motto may, as it must, have described the founder of the noble family to which it belongs, we can answer for its contrast to the sentiments of the present representative. He has an easy course before him, let him reverse it, and mark the time as a truly proud epoch in his family-history. *Forth Fortune and fill the fetters*, would also be improved by a change to *Forth Fortune and break the fetters*. Rising in the scale, but still in the regions of selfishness, are most of the boastful mottoes of the warrior. Of course these manifest Combativeness always in alliance with Self-esteem, variously modified by Firmness, Love of Approbation, Caution, and Hope. *I have decreed*—is Self-esteem and Firmness. *I saw, I conquered*—is Combativeness and Self-esteem, as are, *I advance—I am ready—Foremost if I can—Stronger than enemies, equal to friends—Quo non ascendam—Stand fast—In defence—Steady*—arose from Combativeness and Firmness. *Glory, victory’s reward—Never behind—Death rather than disgrace—Fear shame*—have reference to the world’s opinion, and therefore spring from Love of Approbation, in combination with Self-esteem.

* I give all the mottoes in English, although many of them are in Latin and French.

Cautiousness, when powerful, would not be concealed even in a warrior's motto, as in *On sloes—Beware the bear—Bravely but cautiously.*

Hope may well be expected to predominate in minds subjected to all the chances of war and consequent vicissitudes of fortune; accordingly we have—*I hope—While I breathe I hope—I live in hope—Hope nourishes—By hope and labour—They go high who attempt the summit.* Self-esteem mingles largely in this last. We lately met with a singular example of this motto expressing the ruling feeling. A man rather below middle rank happened to come to us often for professional advice. We observed in him the qualities of unreasonable sanguineness and great love of show. He died, and left a widow and children nearly destitute. Among his effects there was a costly watch, chain, and seals, almost new, worth not less than 60 guineas, which it was perfect insanity for a person in his circumstances to have purchased. Of course there was a crest on one of the seals, and we were curious to observe the motto. It turned out to be, "*Spero meliora—*" "I hope better things." Still with Self-esteem for a basis, Secretiveness lends its aid in some minds to constitute the favourite sentiment. For example—*Never show your rage—I bide my time.* This declaration of cherished revenge is a singular *melange* of Self-esteem, Destructiveness, Secretiveness, and Cautiousness.

Veneration, as Veneration, if unmixed with the baser feelings, which lead to bigotry and persecution, has nothing selfish in it; and when expressed on the warrior's shield, has higher claims to our respect. Its manifestation in rude times was, it is true, for the most part superstitious, and for that reason it is not entitled to be classed with Conscientiousness and Benevolence, unless it is found in company with them—*Salvation from the cross—Glory to God—While I breathe I will trust in the cross—From God, not from fortune—Worship God, serve the King—Amyer loyalty—With good-will to serve my King—One God—One King—One*

Acert. These and many others were probably mere effusions of Veneration; and have nothing in them to show that they were more. But we might conclude true religious feelings to belong in addition to the mind, where Conscientiousness prevailed so decidedly as to appear upon the shield. For example:—*To the lovers of justice, piety, and faith—Boldly and sincerely—Be just and fear not—Candidly and steadily—By courage, not by craft—Every one his own—Do right and trust—Fideliter—Judge nought—Keep tryst (contract)—Probity the true honour—Virtue the sole nobility—To be rather than to seem—High and good—Sound conscience a strong tower—The palm to virtue.* Last of all comes Benevolence, and it is like a gleam of sunshine in the midst of a storm, to see its mild and beautiful countenance in the ages of pride, cunning, and ferocity; but it is but thinly sown. *Be brave, not fierce—Clemency adorns the brave—That I may do good—That I may do good to others—Do all good.* And last, though not least, as a sentiment on the blazon of the warrior who fights for peace, a direct condemnation of war, in the motto, “*Bella horrida bella.*”

In the continued struggle against power, which the history of both ends of our island record, it would be strange if on armorial bearings there were no expressions of the love of liberty,—that fruit of a fine combination of Self-esteem, Conscientiousness, Benevolence, and Firmness. We have, accordingly, such mottos as, *Libertas—Liberty entire—Country dear, Liberty dearer—I have lived free and will die free.*

The mottos which indicate the reflecting powers, as maxims of wisdom were rare in rude times, unless we take those for such as express the higher sentiments, as, *Virtue the sole nobility, &c.* We have, however, lighted upon one which is purely intellectual, and we quote it, because it happens to be eminently phrenological. *Nihil invita Minerva.* It is vain to expect excellence without the genius from which it springs.

It would greatly increase the interest of this communication, were it permitted us to compare the actual history of

distinguished families with their armorial legends. But although public history is public property, family history is not; and we are therefore denied that advantage, and must be content with recommending to the reader to apply the knowledge of such private families as he possesses to the very harmless end of making the comparison between it and the family-arms, for himself. We do not entertain a doubt that in every instance they will be found strikingly coincident.

ARTICLE IV.

CASE OF SPECTRAL ILLUSION.

THE following very distinct and interesting narrative was read to the London Phrenological Society, and kindly communicated to us, for insertion in the Phrenological Journal, by its learned author, a member of the English Bar.

In December, 1823, A. was confined to his bed by inflammation on the chest, and was supposed by his medical attendant to be in considerable danger. One night, while unable to sleep from pain and fever, he saw, sitting in a chair, on the left side of his bed, a female figure, which he immediately recognised to be that of a young lady who died about two years before. His first feeling was surprise, and perhaps a little alarm; his second, that he was suffering from delirium. With this impression he put his head under the bedclothes, and after trying in vain to sleep, as a test of the soundness of his mind he went through a long and complicated process of metaphysical reasoning. He then peeped out, and saw the figure in the same situation and position. He had a fire, but would not allow a candle or nurse in the room. A stick was kept by his side, to knock for the nurse when he required her attendance. Being too weak to move his body, he endeavoured to touch the figure with the stick; but, on a real object being put upon the chair, the imaginary one disappeared, and was not visible again that night.

The next day he thought of little but the vision, and expected its return without alarm, and with some pleasure. He was not disappointed. It took the same place as before, and he employed himself in observations. When he shut his eyes or turned his head, he ceased to see the figure; by interposing his hand he could hide part of it; and it was shown like any mere material substance, by the rays of the fire which fell upon and were reflected from it. As the fire declined it became less perceptible, and as it went out, invisible. A similar appearance took place on several other nights, but it became less perceptible, and its visits less frequent, as the patient recovered from his fever.

He says the impressions on his mind were always pleasing, as the spectre looked at him with calmness and regard. He never supposed it real; but was unable to account for it on any philosophical principles within his knowledge.

In the autumn of 1825, A.'s health was perfectly restored; and he had been free from any waking vision for nearly eighteen months. Some circumstances occurred which produced in him great mental excitement. One morning he dreamed of the figure, which stood by his side in an angry posture, and asked for a locket which he usually wore. He awoke and saw it at the toilet, with the locket in its hand. He rushed out of bed, and it instantly disappeared. During the next six weeks its visits were incessant, and the sensations which they produced were invariably horrible. Some years before he had attended the dissection of a woman in a state of rapid decomposition. Though much disgusted at the time, *the subject* had been long forgotten; but was recalled by the union of its putrescent body with the spectre's features. The visits were not confined to the night, but frequently occurred while several persons were in the same room. They were repeated at intervals during the winter; but he was able to get rid of them by moving or sitting in an erect position. Though well, his pulse was hard, and generally from 90 to 100.

A. is a person of good education and literary habits. I have not the slightest doubt of his veracity. He never supposed the appearances above-mentioned other than illusions. He has always had a *propensity towards the supernatural*, without any belief in it; and he ascribes these effects of imagination to the perusal of the Tales of Wonder, and other ghost-stories, when a boy. He will not allow me to lay before the Society an account of his head, as connected with this statement, as he would not like to be called a dealer in the marvellous. I may, however, say, that Ideality is large, and the reflective faculties very good. J. B. C.

It is evident that the author was not aware when he wrote, of the cases recorded in our 6th Number; (vol. II., page 290;) especially of the light thrown, by the comprehensive instance of Miss S. L., on the nature and immediate cause of such illusions in the morbid activity, and of course internal action, sometimes but not always attended with acute pain, of the portions of the brain through which Wonder, Form, Size, Colouring, and often others of the knowing perceptions are produced. The communication is only the more valuable, that neither the author nor his informant A. can possibly be charged with suiting an instance to a theory; but have narrated appearances as they were experienced and described; and which, unknown to both, tally so exactly with the other instances to which we have alluded, as to leave no doubt of their being the effects of the same causes.

It is not said that local pain was felt by A.; but his pulse was from 90 to 100, and the brain evidently in over-excitement.* When such illusions occur to a patient quite conscious and rational, they are not imputed to the internal excitement of delirium, but to an external object. Even

* He was relieved by holding the head in an upright posture. This was the experience of Miss S. L., (294,)—a proof of an internal mechanical cause; perhaps in the circulation or pressure of the blood, and almost suggesting a topical remedy, or alleviation.

Samuel Johnson is said to have believed in ghosts. It is a rare instance of reflecting power to treat a real perception, — for the perception is real, — as A. did, as a mental illusion. We do not wish this self-possessed seer more apparitions, for we wish him health of body, which includes health of brain; but if he should have any future visits, we should much value a minute description of them; and especially of any local pain, or other accompanying sensation, which he might otherwise not think of observing. We would farther call his attention to such symptoms as giddiness at the moment, or any others mentioned in our former paper.

ARTICLE V.

ON THE SIZE OF HATS USED BY THE DIFFERENT CLASSES OF SOCIETY.

(To the Editor of the *Phrenological Journal*.)

DUBLIN, June, 1828.

SIR,—It is with much pleasure I perused a paper by a London hat-maker, in your Journal for November last; and as it appears from your preface that you are desirous of further observations on the same subject, and as I have been upwards of ten years in the same profession with your London correspondent, and have been necessarily led by observation to entertain the same ideas, I shall endeavour to supply you with a provincial corroboration of that gentleman's statements; trusting it may not be altogether unacceptable to the readers of your Journal, although found deficient in that freedom and eloquence which generally adorn its pages.

In assenting generally to the correctness of the observations contained in that article, I beg leave to notice one remark at the top of page 541, where, after stating the manner in which hatters' measurement is given, the author says, "Upon this

“ principle blocks are used in the measuring and manufacturing of hats to particular sizes, varying from 5 inches, the size of an infant’s head, increasing by the $\frac{1}{8}$ of an inch to $7\frac{1}{8}$ inches, the general full size of men.” With respect to this latter observation, I beg leave to state, that in this part of the country, so far from $7\frac{1}{8}$ being the general full size of men, it may rather be regarded as the maximum; at least, in the course of any business I have met with very few demands for hats of that size; nor do I find, upon the strictest inquiry, it has been otherwise with the most extensive hatters and retailers of hats in this country; and, in point of fact, the cases are so rare, that, in a male population of about 18,000, not more than 10, if so many, require hats of a size from $7\frac{1}{8}$ to $7\frac{3}{4}$, although I know of two extreme cases of 8 inches being required. Nevertheless, a very perceptible difference in point of absolute size between those hats in general request among the higher classes of the community and those of the common and lower ranks must be obvious to every hatter who may choose to pay the slightest attention to the subject. While we may state with safety $7\frac{1}{8}$ to be the medium size of the latter, we are quite certain of being within mark in stating the former to be $7\frac{1}{4}$; thus showing evidently the general size of the one class to be a degree larger than that of the other. It is no difficult matter to perceive that a head requiring a hat $6\frac{1}{8}$, hatters’ measurement, is very small compared with one requiring $7\frac{3}{8}$; indeed the former is by the hatters here considered a boy’s hat, and is very seldom required for an adult; nor is the latter size often required, as already mentioned. This will be readily believed by those who are aware that it would require a head equal in circumference to Dr Chalmers’s to fit it. It is the ignorance of the vast difference that $\frac{1}{8}$ of an inch of hatters’ measurement gives on the absolute size that causes so many mistakes about the general size of heads. Hence we are daily desired to send a hat half or even a whole inch larger

than another specified, or are requested to make this hat an inch larger, because it is too high; whereas $\frac{1}{2}$, or at most $\frac{3}{4}$, is all that is required.

Your correspondent, in speaking of the superiority of the Scotch head, in point of absolute size, over that of the English, recalls to my memory a circumstance which happened a number of years ago, and which shows that the fact is not unfamiliar to those who are in the practice of sending large quantities of hats to Scotland. An agent to one of the most extensive English houses was soliciting fresh orders, when my father observed, that he had just received a very large quantity from his house which, from their small size, were quite unsaleable. When the sizes were mentioned, the agent observed, it was surprising the house should so far forget itself, being well aware such sizes would never do to send to Scotland. Observations which I have made since have fully confirmed the truth of these statements.

It is of some importance to observe, that it is the width of the head at the basilar region, and its extreme length from spine to Individuality, more than its absolute size, that determines the size of the hat. Our weavers afford a striking proof of this; their heads, generally speaking, are thin and high, which enables us to fit them with hats of a smaller size than some who have, in point of fact, smaller heads, but who, from having the greater part in the basilar and occipital regions, require hats of a greater width. It has often afforded me much pleasure to observe the striking concomitancy between the form of the weavers' head and their mildness of character. I have heard this attributed to their circumstances; but I believe that fiery turbulent spirits, who find themselves unable to exercise that patient endurance so necessary to a weaver, either never enter the trade, or leave it after a very short trial. There are some who cannot believe otherwise than that good conduct must always be the result of necessity. No Phrenologist, however, would believe that, with Combativeness and Destructiveness large, they

could manifest that patient endurance of privation which is one of their characteristics; nor is the concomitancy between the cerebral development and the manifestations of those with the other conformations alluded to less striking, although less pleasant to observe. It is the configuration that obtains among the lowest grades of society here, such as our porters, carters, fish-drivers, and scavengers, from whom nothing but the most vigorous manifestations of animalism are to be found. Indeed, from all the observations I have been able to make, I am convinced that the situation of the individual in society is often an index to his development; at least, I often find the worst configurations in the lowest offices, although the reverse of this does not always hold good. But no one can justly regard the mere possession of that distinction which flows from wealth alone as the only criterion by which to judge of moral worth. A popular writer justly remarks, that, "Nobleness of condition is not essential as a school for nobleness of character; nor does a man require to be high in office ere he can gather around his person the worth and the lustre of a high-minded integrity. It is delightful to think, that humble life may be just as rich in moral grace and moral grandeur as the loftiest places of society;—that as true a dignity may be earned by him who, in homeliest drudgery, plies his conscientious task, as by him who stands intrusted with the fortunes of an empire;—that the poorest menial in the land who can lift a hand unsoiled by the pilferments that are within his reach, may have achieved a victory over temptation to the full as honourable as the proudest patriot can boast, who has spurned the bribery of courts away from him. It is cheering to know, that, among the labours of the field and of the work-shop, it is possible for the peasant to be as bright in honour as the peer, and have the chivalry of as much truth and virtue to adorn him."

This, phrenologically speaking, is often the case; for it is easily conceivable that mild and gentle and unassuming individuals are easily

"Checked by the scoff of pride, by envy's frown,
And poverty's unconquerable bar;"

and this they have often to encounter from those who hold

superior stations in society, which are as frequently gained by powerful propensities and intellect as by a predominance of the intellectual and moral faculties. I have frequently considered it would be very desirable to take notes of the development of the different classes of workmen, and then notice their mechanical and moral manifestations. This I shall endeavour to accomplish as soon as my leisure time will permit. Seamen, for example, have a character quite their own, and which, in the present state of my knowledge concerning their configuration generally, I am apt to consider is in a great measure the result of their circumstances. On board they may be said to be a community of equals, where Acquisitiveness and Secretiveness are less frequently called into activity, while the daily perils to which they are exposed have a direct tendency to rouse their Adhesiveness and Benevolence in the rendering of mutual assistance; hence we find them open, generous, and affectionate,—strangers to that selfishness and dissimulation which are but too prevalent on shore. This, at least, so far as my observation goes, is the prevailing character of men bred from their earliest years to the sea-service; although there must be many exceptions in peculiar situations, and especially in time of war.

It would be easy to multiply observations such as the foregoing in various classes of society, but being unwilling to trespass too much upon your indulgence in giving these remarks a place in your Journal, I shall conclude by subscribing myself your's, &c.

T.

ARTICLE VI.

SKETCH OF THE POWERS AND FEATS OF DUCROW THE EQUESTRIAN; ILLUSTRATED BY A CAST OF HIS HEAD IN THE COLLECTION OF THE PHRENOLOGICAL SOCIETY.

A TROOP of equestrians from London, who lately exhibited for some months in Edinburgh, attained very general popularity and celebrity; notwithstanding that equestrian feats had for many years ceased to be a novelty in the place. Their theatre overflowed every night; the other dramatic resorts were comparatively deserted; and, by the time of the company's departure, there were few of the entire population who had not been the delighted and really astonished witnesses of the wonders they performed. The riders were all expert in their break-neck vocation; but, with one exception, had been excelled by the Parkers and Rickets of thirty years ago. The exception was the manager, Ducrow; of whom it may in a word be said, that he as much outdid the feats of the most skilful professors of the art, as they could outdo what could have been achieved by the nimblest of their spectators. Having filled a box with happy children,—not the least interesting part of such spectacles,—we felt in such company quite at ease about our gravity, and resolved minutely to note what we saw, and trace it to its origin,—the performer's brain.

After a trial of skill by the rest of the troop, "Monseigneur venit,"—in the person of Mr Ducrow. He sprang upon his beautiful horse as if the movement had been a step in a quadrille, and, putting him to his full speed, stood upon the saddle with as much ease and confidence as he could have stood on the ground. In the expression of the other riders there was the anxiety of Cautiousness as their horse galloped round; but the remark was general that Ducrow seemed to forget his perilous situation, and to be, moreover, unconscious

that every change of his position was marked, in a manner peculiar to himself, with ease and grace, and that every attitude was unconstrained, natural, and elegant. The circular, and it may be observed, moderately-sized arena, like the skater's out-edge circle on the ice, it is well known, gives to the equestrian who stands on horseback the benefit of the law of rotatory motion, like a hoop whirling round a full glass of wine. The horse is forced into a sloping position, to which the rider must conform; and his inclination inwards increases not only his gracefulness, but his safety. But DUCROW scorns the ordinary limits of rotatory aid; and, in the face of all accustomed phenomena of gravitation, flies round, standing at such an angle, even to his sloping horse, as no human being but himself could have changed to any thing but a descent to the sand. Often he seemed to stand *on the side* of his horse; but he recovered a safer position just as easily as he threw himself into the inexplicable one now described; and in every part of the feat he was as graceful and easy as in his simpler performances. The ordinary exploits of skipping-ropes, garters, and hoops, were the mere casual odds and ends of his exhibition, and seemed to give him no more concern than the riding round; he had a much higher, and certainly in his vocation a most unheard-of field of performance. Flying round at full speed, he began to act a dramatic scene pantomimically. His dress was that of a sailor, and a small bundle on a staff over his shoulder was meant to express his return to his home. None of the incongruities of a sailor's equitation, even with the assured equilibrium of a seat on the saddle, aided by the usual safeguards of a leg on each side of the horse, and feet established in the stirrup as fast as a vagrant's in the stocks,—nay not even the outrage on nature of a sailor standing on the back of a horse at a gallop, for a moment occurred to the spectator who saw the gallant tar swinging round as naturally and as securely as if he had been reefing a top-sail. We soon forgot that he was

on horseback at all, so powerfully did his *scenic* talent engross us with other feelings. The animated look and the speed of his progress to that concentration of human delights, Home, were finely and most naturally acted; while the grace and ease of the winged Mercury was realized to our view. His heart was full of the details of his happiness. In an instant his bundle was unpacked, and a girl's little frock was displayed and folded to his bosom; it was replaced, and a boy's dress was hung out with the same natural language of a father's affectionate anticipation of soon embracing the future wearer. The horse at speed was now completely forgotten by the spectator, and, to all appearance, by the actor himself, who seemed engrossed with other business than maintaining his balance in his critical position. The thing was so exquisitely done, that many of us were positively ashamed of being beguiled of a tear by so powerful an appeal to human sympathies, coming from so extraordinary a stage. But he has yet another claim on the spectator's feelings. His darling boy and girl have a mother, and he has a beloved wife; and forth from his bosom comes her miniature! Nothing could exceed the grace and passion of this enraptured movement, as, mid-thunders of applause, he flew round the circle, holding it out eagerly, but gracefully, as if he said, "Look how beautiful she is!" then kissing it and holding it out again,—himself anon surveying its beauties at different distances from his eye, as if he criticised it in the composure of an arm-chair; and with his other hand—for he has always both hands at his command—pointing out all its beauties. A purse of gold he then joyously displays, and avoids all the coarseness of that exhibition, by a graceful and kindly movement which refers the treasure to the emblems of those other treasures, which give it its chief value. It was really ridiculous not to be able to keep unmoved by the entire spectacle of a man standing upon a galloping horse, holding up in one hand two baby-dresses and a miniature picture, and in the other

thinking a purse of gold. The purse and picture are restored to his breast, the dresses are packed up, the horse continues at undiminished speed, and the sailor proceeds to tell, still in pantomime, his history ; all his perils by flood and fight, his battles and his shipwrecks, during which he fights his gun, hauls the ropes, rows a boat, is cast into the stormy sea, saves himself by swimming, performing the motion with inflated cheeks ; and all with a truth, and force, and pathos, which no actor on solid boards, who had nothing else to do but to think of the truth to the nature of his delineations, could have exceeded.

The parts thus played by this singular man were numerous, and all equally successfully. Nothing baffled him. He could undress and re-attire as he stood on his horse at speed ; with many other feats equally unacordant with his perilous position.* But his masterpiece of equestrian prowess, in which he never had, and we may safely calculate, never will have a rival, is managing six horses at speed at the same time ; changing their arrangement with all the regularity of a cavalry-movement, or a cotillon, while he bestrides several at once ; standing now upon one, now upon another ; sometimes one foot on the shoulder of one, and the other on the croup of another ; sometimes lying down *among* them with his hands folded, to sleep ; then rousing himself, and, remembering his commission as a courier, sorting his letters, and replacing them in his mail-bag ; while there is not a false movement, even a slip, or for one instant the appearance of difficulty, or disturbance of a demeanour of the most perfect ease and elegance. These two last qualities seemed quite inseparable from his every movement. His contest with Bucephalus was graceful ; so was his bearing as, monarch-like, he witnessed the games of prowess by his soldiers, and descended from his pedestal to crown the victor

* He has since performed in London seven characters without leaving the saddle.

with a wreath; while his exhibition of the attitudes of a number of the finest statues evinced how vividly images of beauty, in form and posture, are perceived and how naturally they are realized by him.

Now, as it is phrenologically undeniable, that there was not one jot of all that Ducrow thus performed, whether it was movements or attitudes, or balance of body, or expression of feelings, which did not spring from his brain; in other words, that no form of trunk and limbs, no endowment of muscles, no proportion of body, no elasticity of tendons or ligatures, would of themselves be sufficient, unguided by cerebral influence, the question is of great interest to the Phrenologist,—What must that brain be which could achieve it all with the most perfect facility?

First, Let us consider Ducrow's easy and never-failing maintenance of his balance in the critical position of standing on the back of a horse at full speed. The facts and reasonings in the two papers in the Phrenological Journal, vol. II. p. 412, and IV. p. 266, go far to explain this rarely-possessed power. In the last-quoted paper, it is shown that there is a system of nerves which convey a feeling of the state of the muscles, as affected by external forces, to the brain; which instantly responds by sending the necessary nervous influence, by the medium of the nerves of motion, to the muscles, to enable them to restore their equilibrium. The more nice the perception of a changed state of the muscle, the more immediately will its equilibrium be restored; and it is only supposing this sensation very exquisite, and the motor-nerve very obedient, to conceive equilibrium not only recovered, when endangered by the most trying variations of gravitation, but so steadily preserved as never to be lost, or even appear to be lost. It requires one degree of the sensation of equilibrium, and the responsiveness of muscular contraction, for the human body to stand on the ground. It is an increased degree of the quality to preserve the balance of the body standing on a moving support, as on a cart in

motion. But the ever-varying and muscle-disturbing forces of a horse at full gallop, to a person standing on the saddle, nay, of six horses at speed at one and the same time, producing no perceptible effect on the steady, easy, and even graceful attitudes of the rider, presents the highest degree of this equilibrium-preserving power. The difference in this between Ducrow and us is, that the very first change of the state of our muscles by the motion of the horse upon which we were rash enough to stand, would, for want of practice to antagonize that change by the necessary muscular contraction, bring us, in obedience to the law of gravitation, to the ground; while he is undisturbed by any number of such changes, and, by a constant and steady counterpoise in his ever-prepared muscular energies, not only seems never to lose his balance, but actually preserves it as effectually as we do in standing or walking. In the paper first above noted, vol. II. p. 412, it was shown to be highly probable, that the organ called that of Weight gives, among other things, a ready and vivid perception of equilibrium, and its disturbing and restoring forces; and in the other essay, vol. IV. p. 283, it was inferred, that although the nerves of this *sixth* sense were not traced into the convolution of brain called the organ of Weight, it might be proved, by a sufficiently large induction; that that organ is large in persons who possess in a remarkable degree the command of equilibrium; and that there is a connexion between the sense and the faculty analogous to that between hearing and seeing, and the organs of Tune and Colour respectively. In the first-noted essay many instances were mentioned, and we now offer Ducrow as an additional and no trifling illustration of the same conclusion; for in him the organ of Weight is very largely developed. In addition, we should have expected the Lower Individuality to correspond in size to that of Weight, to give the rapid perception of objects and movements necessary to the feats in question. This organ is very large in Ducrow. Indeed all the knowing organs are unusually large, Form,

Size, Weight, Order, and Locality, in addition to Lower Individuality ; so as to give a degree of command of external objects and their simple relations quite inaccessible to those more moderately gifted. The general quickness, cleverness, and sharpness of Ducrow, must be very great.

Secondly, Graceful attitude, always supposing it is not rendered physically impossible by deformity of body, must be based in a command of Equilibrium, in combination with Form and Ideality, and perhaps Imitation. These are all large in Ducrow : they must impress images of grace and elegance on his mind, and transfuse them into his movements and attitudes. His position on horseback is not an essential of this grace. He would dance or skate with the same ; nay, his common walk, as was evident even on the arena, will partake of the quality.

Thirdly, Ducrow's Order is very largely developed. We, of course, had no opportunity to witness its exercise in the arrangements of his numerous stud, and not less numerous company ; though all we did see seemed to indicate the effects of a well-conducted system ; but we cannot conceive the feat of the six horses performed, the utmost order preserved, and harmony produced in their most difficult *manège*, and the curious and imperceptible impulses of rein by which they were shifted into new relative places by their master's magic hand, without an unusual application of the faculty of Order or Symmetry.

Lastly, Ducrow's scenic or pantomimic powers proceed from the well-known combination of faculties, all large in him, of Imitation, Secretiveness, Lower Individuality, and Ideality ; while the feelings, of which he gives the natural language, are also in considerable endowment. Besides a fair proportion of the animal faculties to give him boldness and energy, this singular individual presents what we should call a most gentlemanlike endowment of the moral sentiments. The coronal surface of his head is quite what a Phrenologist calls beautiful ; and, added to the refinement inseparable from Ideality, there is the Benevolence, Veneration, Hope, Love of Approbation, and

well-regulated and dignified Self-esteem, which never fail to constitute a character, and, of course, a manner of politesse, courtesy, and agreeableness. The demeanour already alluded to, with which, as Alexander, he bestowed laurel crowns on the victors in the classic games, appeared to us to emanate from that interesting combination.

But we are not yet done with this extraordinary man. We have enumerated a variety of wonders performed by him; but we have not yet called the reader's attention to the most astonishing fact of all, namely, that, different and distinct as each performance is from another, requiring not only different muscular and nervous exertions, but the utmost activity of different faculties, several are performed by him, and performed with the utmost ease at one and the same moment! There are persons who possess this power of the simultaneous so slenderly, that although they can sing the air, and *say* the words of a song, they cannot bring Tune and Language to act together, so as to sing the words and air at one and the same time. Ducrow's power is the greatest possible contrast to this defect. The power alluded to is one of the manifestations of what, by the Scottish school of Phrenology, is termed *Concentrativeness*,—the Inhabitiveness of Dr Spurzheim; and perhaps there is no other manifestation which is more calculated to give a clear idea of the nature of a faculty which enables its possessor to direct not only one, but several powers steadily and without vacillation to one object, whether that object be thinking, feeling, or acting. Ducrow has one of the most unequivocally large developments of Concentrativeness, Mr Pitt's not excepted, we have ever yet met with. This faculty puts into his hands the reins of other powers, which, for want of such checks, would pull different ways; and he guides them, and combines them, and varies their action, just as he does the movements of the six horses so often alluded to. It is incredible what he does at one and the same time, each single thing being something of the most difficult achievement in itself. To maintain equilibrium with

case standing on a horse at full speed; to conceive and realize a variety of attitudes of perfect gratefulness, to carry on in pantomime a scenic narrative, and move the spectators almost to tears with the natural language of all the tenderness of home; are each of them performances of rare attainment; but the whole done, and done to perfection at the same time, seems to demonstrate that there is a special power to produce an effect so little referable to any of the faculties which performed *each* of the feats enumerated; and, moreover, that Ducrow is eminently endowed with that power. It may be remarked in passing, that the Upper Individuality, called Eventuality by Dr Spurzheim, is in Ducrow not so largely developed. His feats do not require the aid of this faculty; but the lesser endowment is mentioned here, because the power of concentrating has been attributed to this faculty; and, we think, erroneously.

We are surprised with the length of time our equestrian has occupied us. But we have not lost that time on an unimportant phrenological subject. We have all had our turn of delight with much inferior horsemanship to his. The Cherokee Chiefs chanced to see Rickets perform at New York, and greatly marvelled that a man so highly gifted was not president of the United States; or, at least, King of England. But the hero of this notice so far transcends Rickets, were even Cherokees his critics, and so much surprises and delights judges of his higher powers, that his merits as a show are nothing to his value as a philosophical study.

ARTICLE VII.

OF INDIVIDUALITY.

By Mr W. Scott.

THERE is no part of the science of mind which has been more puzzling to philosophers than that which regards the pheno-

means of perception. Various ingenious theories have been devised for the purpose of explaining the manner in which, from the intimations of our five bodily senses, we become acquainted with the external world,—of accounting for the fact of single vision with two eyes,—for our seeing objects in an upright position by means of inverted images on the retina,—for our judgment of distances by means of sight, and various other mysteries. Much plausible reasoning has been bestowed upon the investigation of that species of mental chemistry; by which sensations, which are mere feelings of the mind, are converted into a vivid perception of things without us, accompanied with a belief of the strongest kind in the real existence of a material world. All this speculation is at once swept away and rendered unnecessary, by the discoveries of Phrenology, which has revealed to us, by an induction of facts too numerous to be questioned, that, besides the five external senses of seeing, hearing, smelling, tasting, and feeling, we possess certain internal senses, the functions of which are so adapted to the former as to supply all that is necessary for conveying to us the information required. It is now established beyond a doubt, that we possess separate special powers for observing and judging of the sensible qualities of Form, Size, Weight, and Colour. Another separate power, Locality, enables us to judge of distance or relative position. Other three supply the relations of succession in Time, Order, and Number. There may very possibly be others yet undiscovered; but these which are already known seem to embrace every quality of material existence with which we have any means of becoming acquainted.

It is not my intention here to state the evidence for the existence of these faculties; this is to be found in the works of Dr Gall and in the elementary books on Phrenology. I shall take it for granted that they exist, as I am satisfied they do, and that their functions are such as the Phrenologists have attributed to them. It is to be observed, however, that in nature we seldom if ever find one of these powers acting

alone, or without the joint operation of some of the rest. It is possible, no doubt, that they may act separately; but such separate action is hardly ever produced, except by artificial means. It may be possible, certainly, to throw a veil over the eyes, which shall exclude all impressions of Form, and still leave light enough for different impressions of Colour. In general, however, Colour only appears to us by the reflection of light from the surfaces of coloured bodies; and as all bodies have some form, Colour is thus generally combined with Form. The nearest approach to Form without Colour may perhaps be found in a statue of pure white or black marble; but even this is not a pure example of Form *per se*; for the statue is an object possessing both Size and Weight, and it is hardly possible for us to consider it abstracted from these other qualities. Perhaps Weight, or resistance, is a quality as easy separable as any other, in our perceptions, from all other qualities. If we shut our eyes, and press our hand against a smooth but hard and resisting surface,—or if we have placed upon our hands a heavy body of any kind, large or small,—we are conscious of the feeling of Weight; or resistance, quite separate and abstracted from any ideas of Form, Colour, Size, or any thing else; but I know not any of the visible qualities and relations of objects which are capable of being presented to us in the same state of separation from all other qualities. If we look at a visible object of any kind, we perceive at once, if we perceive it all, its Form, Colour, and Size; and it is impossible for us to perceive one of these qualities without the others.

It might appear, perhaps, that the faculty of Tune, forms an exception to these remarks, in the case of our having the impression of musical sounds without seeing the performer, or without our knowing whence the music proceeds, as sometimes happens in the darkness of night; but this is in truth no exception; for Time and Tune are both necessary for the production or the perception of music; and if the simple perception of audible sounds be, as there is reason to think, a

separate faculty from either, there would appear to be no less than three faculties concerned in conveying to us the impression of the simplest air in music.

From these and other considerations, I think it may be fairly doubted whether these lower faculties are, separately and in their uncombined state, capable of producing on the mind a perception of any thing external. But without entering into this question, which would require a separate essay for its full elucidation, it may at all events be admitted, that to convey to us a clearly-defined, accurate, and complete perception of any external object whatever, there is required a union and co-operation of several of these powers, more or fewer of them being concerned in each case, according to the nature and qualities of the object perceived.

Besides these separate powers, thus calculated to convey impressions of the separate qualities of objects, it would appear that there must be necessary another faculty, whose office it should be to connect them, and enable them to act together in the perception of external objects. The mere impressions of Form, Colour, Size, &c. would not of themselves, as it appears to me, be sufficient without another feeling.

The following account of this power is given by Dr Spurzheim, in the second edition of his *Physiognomical System* :—

“ Dr Gall observed in society different persons who, though not always profound, were learned, had a superficial knowledge of all the arts and sciences, and knew enough to be capable of speaking on them with facility ; such men as are deemed brilliant in society. He found that in them the middle of the lower part of the forehead was very prominent, and, consequently, that the anterior inferior part of the brain was much developed. At first Dr Gall called this organ that of the memory of things, because the persons endowed with a great development of this organ had much information, or knew many things, but afterwards, as he observed that memory is only a degree of the activity of every faculty, he named it the organ of the sense of things. In comparing animals with men, and one kind of animal with another, it is obvious that tame animals have the forehead more developed than wild ones, and that they are more or less tameable in proportion as the

"forehead is developed, and, therefore, Gall now calls this organ that of Educability."

He then goes on to make some observations on this part of Dr Gall's system, and mentions some errors into which he conceives him to have fallen with respect to this organ, and he concludes his account of it thus:—"Persons endowed with this faculty in a high degree are attentive to all that passes around them, to every object, to every phenomenon, to every fact, and hence also to motions. This faculty neither learns the qualities of objects, nor the details of facts, it knows only their existence; the qualities of the objects and the particularities of the phenomena are known by the assistance of other organs. This faculty, moreover, has knowledge of all internal faculties, and acts upon them. It desires to know all by experience, and, consequently, puts every other organ in action. It wishes to hear, see, smell, taste, and touch, and know all the arts and sciences; it is fond of instruction, collects facts, and leads to practical knowledge."
 "I call this faculty that of Individuality, because it knows not only the external world in general, but also each object in its individual capacity."

It may appear at first sight, that a power of such extensive use can hardly be brought within the limits of one simple principle or mode of operation; but on mature consideration, I would venture to suggest, that all that is attributed to this faculty may perhaps be found to be included in one simple relation, which has been described by Dr Thomas Brown under the name of the *Relation of Comprehension*.

The following is the account which he gives of this feeling:

"I consider a *house* and its different apartments, a *tree* and its branches and stems and foliage, a *horse* and its limbs and trunk and head. My mind, which had existed in the states that constituted the simple perception of these objects, begins immediately to exist in that different state which constitutes the feeling of the relation of parts to one comprehensive whole.

"In these cases," he observes, "the parts which, taken together, form a whole, are truly substances, which constitute them by their mere juxtaposition in apparent contiguity, and which may exist apart after division. They are also conceived by us as subjects of qualities, which co-exist in them, and which cannot exist apart; or, in other words,—for the qualities of the substances as perceived by us are nothing more—they are capable of affecting us as sentient beings, directly or indirectly, in various ways. A flake of snow, for example, is composed of particles of snow which may exist separately; and this composition of separate particles in

"seeming coherence is one species of totality ; but the same snow,
 "without any integral division, may be considered by us as possessing
 "various qualities, that is to say, as capable of affecting us variously.
 "It is cold, that is to say, it excites in us a sensation of chillness ;
 "it is white, that is to say, it produces in our mind a peculiar
 "sensation of vision by the light which it reflects to us ; it has
 "weight—is of a certain crystalline regularity of figure—is soft or
 "hard according as it is more or less compressed—liquifiable at a
 "very low temperature—and my conception of snow is of that per-
 "manent subject, which affects my senses in these various ways.
 "The conglomerated flakes in a snow-ball are not more distinctly
 "parts of the mass itself, which we consider, than the coldness,
 "whiteness, gravity, regular form, softness, or hardness, and ready
 "fusibility, are felt to be parts of our complex notion of snow as a
 "substance."

It appears to me, that if there is a separate faculty whose
 office it is to consider things as individuals, (and I conceive it
 to be proved that Individuality is such a faculty,) it must be
 exactly such as is here described by Dr Brown. It must be
 a power of considering an object as made up of various parts
 and possessing various qualities ; and our conception of each
 individual must include all these more or less perfectly, ac-
 cording to the degrees of our knowledge. Every individual
 object, matter, or fact, which we are capable of making the
 subject of our thoughts, is a concrete and complex subject,
 made up of various parts, and possessing various definite
 qualities, and, consequently, all our notions of individuals
 must be complex also. This is not only true of individual ob-
 jects ; but of individual events. Even the most common and
 apparently the most simple event that can happen to us as
 sentient beings, as moral agents, or as members of society,
 necessarily involves, in order to its being fully understood, a
 vast variety of separate considerations. This is true of all
 events forming the staple of what is commonly called news,
 public or private, foreign or domestic, battles, sieges, and
 treaties, or births, deaths, and marriages. We talk of a mar-
 riage as an individual event, and have no difficulty in con-
 sidering it as such ; but, in point of fact, a marriage is a very
 complex affair, and implies the concurrence and co-operation
 of a vast number of circumstances, all of which enter into our

conception of it. It implies that two parties of opposite sex, having formed an attachment to each other, have resolved to unite themselves together for life; that they accordingly come before a clergyman, and after certain preliminaries required by law, make a solemn vow in his presence, and in the presence of other witnesses, that they will adhere faithfully to each other, and endeavour to promote each other's welfare and happiness till death them do part. We know, moreover, that this ceremony is accompanied with certain legal effects with regard to the rights of the parties, their mutual claims upon each other's property, and, in the case of the union being fruitful, the rights of their children to succeed to that property after their death. All of these circumstances and many more enter into that complex state of intellectual feeling which composes our notion of a marriage; and yet we consider it as one individual event, and nothing more.

In the same way we talk of a battle as of one individual event; but the same and even a much greater complexity attends this. In the first place, we have the two opposing armies, composed of a greater or smaller number of troops of different descriptions. The attacks made by each of them upon the other—the firing and cannonading—the charges of cavalry—the close engagement by the bayonet—the successive changes in the fortune of the day—the fire—blood—wounds—death and confusion that every where prevail—the wavering, retreating, and final destruction or flight of the one party—the toil, danger, but final success and victory on the other. Such are the circumstances attending a battle, more or fewer of which, if not all of them, are included in our notion of it in each individual case, and yet we have no difficulty in thinking of it as a single event.

It has been observed, that our notions of individuals are by no means necessarily, in every case, a complete picture of the object or event thought of, in all its circumstances and details. We seize the object first as it were in the gross, or accompa-

nied by some of its larger features, and as our knowledge of it increases, we gradually fill up the minuter details, and if we attend to it long enough to understand these completely, we may be said at last to finish the picture, and colour it after nature. Take as an instance the notion which different people may entertain of a great city such as London. We may suppose there is hardly any person, of mature age and understanding, in these kingdoms, who has not some general notion of it as an immense collection of houses and people; and those who pay any attention to the political situation of the country know, in addition to this, that it is the place where the king resides and the parliament meets; that it is the seat of government and the capital of the kingdom. Even such a notion as this, meagre as it is, is far from being very simple, and may easily be expanded into a vast variety of collateral branches, of which a previous notion must have been formed before we could have put them together. But how different is this conception of London from that of a person who has actually been there? Of those, again, who have seen it, there may be a great difference in regard to the sort of notion they carry away of it. If the stay of the visitor has been short, he may, indeed, have a vastly more distinct conception of it than one who has never seen it at all; but still he may have a very confused recollection of the different streets, and may have omitted or forgotten a thousand important objects with which a longer visit would have rendered him familiar. At every successive visit he sees more and more to excite his astonishment in the vastness, the splendour, the riches, the extent, the population, the bustle, the convenience, and the general good order of this wonderful place; but yet he may never be able to learn half the wonders it contains, so as to reach to any thing like a perfect idea of it. Much, too, will depend upon the character of the visitor himself, and the feelings and objects with which he approaches it. If he is a man of pleasure, he will find there every thing that wealth can purchase to gratify the lower propensities. Beauty, ele-

gance, fashion, and splendour, seem to court him from every side. If wealth is his object, here, in the greatest emporium of commerce in the world, the wealth of many kingdoms seems to be concentrated. If ambition, this is the scene for talents of every order, and in every department or pursuit, to earn their highest reward. Is he inspired by the desire of knowledge or the love of philosophy, or by the philanthropic wish to benefit his fellow-creatures?—here he will find the largest scope for all these pursuits, and the largest means both for their exercise and gratification. It is obvious, that according as they are actuated by one or other, or any of the different feelings, the immense world of London, may appear to those who explore it, in a vast variety of different aspects, and that the general impression of it which each will carry away with him will vary accordingly; and yet London is to each of them strictly an individual. It is an individual city, and, considered as a city, possesses as much the character of Individuality as any other object made up of concrete parts, that is, as much so as any other individual in the world.

This may be thought to be an extreme case; but, in truth, there is no individual object in existence that is not complex to a degree almost surpassing belief, made up of more parts, and comprehending more qualities, than we are ever to be capable of thoroughly comprehending. There is not a green leaf that grows, nor an insect, even the most minute, that feeds upon it, that is not made up of parts too intricate and minute for our imperfect powers to scrutinize; and if, then, the lowest productions of nature are inscrutable, what shall we say of those which are higher in the scale, of the larger, more perfect, and more beautiful plants and animals?—what shall we say of man himself? How many sciences would be required for the complete understanding of all that is *comprehended* in one individual man, or for the intimate and perfect knowledge of all the parts of which he is composed, and of all the qualities of all these different parts?

In short, every *individual* in the world, as well as the world

itself, is a system of parts connected with one another by this general relation of *comprehension*. It is a feeling of this relation which enables us to consider any object as an individual, and it is this feeling of the Individuality of different objects which alone enables us to make any use of our perceptive powers. It may safely be said, that this is the most important intellectual power we possess. We might exist without reflection, but we could not be preserved for a single day without such a faculty as Individuality.

If we take, for example, the sense of Sight, which conveys the clearest and most definite perceptions to the mind, it is evident, that, without this additional power of considering separate objects, each as a whole including various parts, we could not, by the intimations of this sense, acquire any knowledge whatever. We would be sensible, no doubt, of the impressions of various colours and forms, but without Individuality we could neither separate these into parts, nor view any of the separate parts as combining to form a whole. The impressions of sight would, in such a case, strike us with as little coherence or connexion as the colours upon a painter's pallet-board, and their successive and various combinations might amuse us like the ever-shifting figures and colours of a kaleidoscope, but they could convey to us as little information as these respecting the things without us. But, by means of this faculty, we are not only enabled to separate from the general mass of visual impressions those which constitute one entire and individual object, and make this the subject of our consideration, exclusive of all the other subjects which surround it, but we are enabled to consider it as possessing qualities of a different kind from those which are manifest to sight,—the knowledge of which we have acquired by means of other faculties. For instance, it is by means of this faculty that, when wandering in a wood or a plain, the savage is enabled to distinguish from the rest, and from all other surrounding objects, an individual tree; and he not only distinguishes this by its general outline, or by the appearances

of its bark, leaves, branches, or fruit, but he recollects that this very tree formerly afforded him shelter from the rain and the storm,—that he escaped the attack of some wild beast by ascending its trunk,—that its dry leaves being kindled, afforded him warmth,—and that, by tearing off one of its branches, he provided himself with a bow or a club, which had since served him as an instrument of war or of defence. I do not say that it is by Individuality alone that the savage arrives at all this knowledge of the various uses and qualities of a tree, but, having arrived at the knowledge of these qualities, and the experience of these uses, the consideration of these are henceforth conjoined with and forms part of his notion of a tree, and they all necessarily occur to him as comprehended in that complex individual object. In like manner, in surveying any of the heavenly bodies, as, for instance, the moon, he not only considers it as it appears to his sense of sight, an object that is bright and round, and having a certain breadth of surface, diversified with light and dark spots, but former observation enables him to recollect it under different forms and phases. He remembers its gradual and periodical increase and wane, and he knows when to expect its stated returns of light and darkness. He remembers how useful its light has been to him and his tribe on many occasions, in enabling them to pursue journeys, or to carry on their expeditions against their enemies, or for the pursuit of wild beasts, and he expects to derive the same advantage from it in future. All these circumstances and many more enter into the complex notion which the savage entertains of that individual object the moon.

And so it is with every object in nature. There is no individual in existence that does not include, or that is not possessed of various parts and properties, the consideration of which not only is included in that of the individual, but actually forms and makes up our notion of the individual itself. The clearness and distinctness of our conception of the individual depends entirely upon the clearness and distinctness

of our conception of these different circumstances and qualities which are comprehended under it, or which invariably attend it. Perception may exist without this, and reflection may exist without it, but this alone is knowledge.

It will not require much consideration to convince us, that, if Individuality is the same with this faculty of *comprehension*, it necessarily embraces all our knowledge whatever; for what is every thing in the universe, nay, what is the universe itself, but a whole consisting of a greater or smaller number, a more or less intricate combination of parts? These are either in a state of co-existence or sequence; in the former state, that of co-existence, they are connected as objects; in the latter, that of sequence, as events. We think of the universe as containing innumerable systems, suns, and worlds,—we think of our own sun, and the system of planets and worlds that surround it,—we think of this planet or world which we inhabit as containing various seas and continents,—of a continent as containing various kingdoms,—of a kingdom as containing sundry provinces,—of a province as containing various districts, cities, townships, parishes, or villages,—of a town or city and its various streets,—of a street and its various houses,—of a house and its different apartments,—of an apartment and its various conveniences and furniture,—of a cabinet and its different drawers,—of a drawer containing various objects, such as papers, caskets, jewels, each being itself an actual individual, made up of various parts, and possessing various qualities, all of which are necessarily included in any distinct conception respecting it. We think of any series of events, such as the history of a particular country or nation, or we may confine our attention to the events of a particular reign, or to a particular war that broke out in that reign, or to the event of a particular campaign in that war, or to a particular battle that took place in that campaign, or to the share that an individual chief or warrior had in the events of that battle, or to any single accident or event that befel him during the battle. It is obvious, that either in the

state of co-existence or of sequence, the objects or events which we are considering are all made up of and include certain parts and circumstances, a knowledge of which is essential to the understanding of these objects and events themselves; and that they all may be considered, farther, as being themselves but as parts and circumstances included in our conception of some greater object or event, or of some system or series of them, and filling up a place in the general chain of existents or of consequents.

This is not more true in regard to what we remember or conceive of real objects or events, than it is of those which we imagine, as it is easy to demonstrate by an analysis of any kind of fictitious composition. We have it not in our power to figure to ourselves any individual person, matter, or thing, event or series of events, without putting together parts already separately known to us as belonging to other individuals. It is the very essence of an individual to be made up of parts, and it is by the different combination of them in each particular instance that any thing can either be known to us, or considered, or imagined by us as an individual. I shall here quote some remarks from a distinguished periodical publication,* which are equally sound in criticism and in philosophy, and of which every one will at once see the application to our present subject.—“Dr Johnson, in his preface to *Shakespeare*, has said, that in the writings of other poets a character is too often an individual; in those of *Shakespeare* it is commonly a species. This opinion, which Dr Johnson delivered as a eulogium, would have been the most derogatory that could have been devised to the merit of our great bard, had it been true; but, fortunately for those who admire his plays, it is altogether unfounded; and, in order to give it either sense or justice, it must be reversed. The prodigious excellence of *Shakespeare*, that which raises him above every other poet, is, that *all his characters are individuals*.—They do indeed belong to some class, and so do all men; but, besides the generic attributes which mark that class, each has his own peculiar qualities, which distinguish him from every other individual appertaining to it. *Macbeth* and *Richard* belong to the class of ambitious men, who would undertake any

* Quarterly Review for December, 1823, p. 416.

" thing to gratify their ruling passion ; but it is impossible not to distinguish each from the other by his individual characteristics. Shylock and Iago belong to the vindictive class ; Othello and Leontes to the jealous ; yet nothing can be more different than the details of these passions in each personage." After some farther remarks, the reviewer proceeds to state,—“ It is this close, this condensed mode of representing mankind which gives such truth and vividness to all the conceptions of Shakspeare ; which makes us believe in the deception he practises upon us, and completes the illusion. He is the only poet who has observed the progress of nature in constituting moral genera and species, and in proceeding from them by more determinate characteristics to varieties, and thence by shades still more defined to *individuals*. A simple passion or propensity constitutes the generic property. The addition of a second diminishes the number of persons to whom it can apply, and makes the picture more precise. A third and a fourth bring it still closer to the likeness of a single original, till at length an assemblage of qualities, too minute and too exact to meet together in any other person in the same proportions and degrees, reduce it to the strict likeness of one only living sentient being. Thus it is that men in real life are characterized as individuals, as distinct from all the race, and thus only can poetic Individuality be delineated. By Individuality we do not mean that the personages should be the copies of any existing individuals, but that their qualities should be so combined and concentrated as to be applicable but to one single ideal individual of the species.”

The foregoing remarks are, in the strictest sense of the word, phrenological, and give an account of the formation of individual characters by the different combinations which each of them presents of the original elemental principles of thought and action in human nature, corresponding in every point with that which is afforded by Phrenology ; and granting that it is by means of this difference of combination that different characters are recognised as individuals, either in fictitious composition or in real life, it necessarily points out to us that the faculty by which *individuals* are recognised and distinguished as such must be one which takes in a *combination*, and which regards one particular conjunction of combined parts as forming an individual whole.

This is not more the case with regard to the character than the history of an individual, only the latter generally lies more open to observation, and is more generally a subject of exercise for our Individuality, than the latter. There are

certain events and accidents in life to which all men are liable ; but yet no two individuals in the world are exposed to or experience these exactly in the same order of sequence. Some are successful, others unfortunate in life, while many remain nearly in the state in which fortune or birth originally placed them. Some fill a large space in the public eye, and become eminent or conspicuous in some way, either for good or for harm, while the greater part pass their days in comparative obscurity. But the different forms and degrees in which all these circumstances are combined are altogether infinite, and every man has a story to tell of himself different from that of any other individual in the world. He may first mention its great outlines, in regard to which he may fall within a very extensive class ; another and another circumstance lessens the number of individuals to which the description would apply, till, as we come to farther and farther degrees of circumstantiality, the combination of events comes to be so minutely particular as to apply to no other individual on the face of the earth. In this way it will appear that an individual history is composed exactly in the same way as an individual character, by the uniting together of different parts and circumstances after a particular manner of combination. It is the *combination* only that is peculiar to the individual ; each of the separate parts and circumstances taken by itself is common to the whole class to which it belongs.

It is exactly the same with regard to a man's figure and appearance, his features and dress, and those other circumstances of complexion, gait, manner, speech, and behaviour, which enable us to distinguish him from all other men in the world. One or two circumstances may point him out to us as belonging to a particular class. We may see from his dress and air, even at a distance, that he is a gentleman, and not a beggar. As we approach nearer, we observe more and more peculiarities, as that he wears a wig and spectacles,—that he slouches in his walk, and carries a cane or umbrella ; at last, so soon as we perceive such a combination of points

and circumstances, as is not to be found in the same combination or degree in any other person, we immediately recognize him to be, a particular *individual*, whom we had formerly seen.

What then is *Individuality* but a power of observing, conceiving or *comprehending* individual objects and events, in reference to their *parts*, *circumstances*, and *details*? and wherein consists a powerful Individuality over that which is feebler, but in the more vivid, accurate, and distinct apprehension of all the parts, circumstances, and details, included or *comprehended* in such individual objects or events? If to the power of the perception of the *separate* qualities of objects or events, which is conferred by the lower observing powers of Form, Colour, Size, Weight, Order, Number, Time, Locality, and so forth, be added, this additional power of *comprehending* the whole as a complex and concrete *unumquid*, then the power of apprehending or conceiving existences or events will be complete, and we can conceive nothing more to be necessary for every possible sort of perception. If the lower powers above-mentioned be weak, then our notions will be defective as to the special qualities of material existence observed by such powers. If the *combining* power, the Individuality be weak, then there may be a difficulty of distinguishing individual objects, although the special qualities are distinctly enough perceived. If both be in full vigour, then the power of apprehending or conceiving existences or events will be the greatest possible, and will as far exceed the apprehension or conception of them, by those in whom the aforesaid powers are feeble, as the power of Herschell's great telescope exceeds that of a common perspective glass. The lower observing faculties give the vividness and distinctness of detail,—the great Individuality gives distinctness in combination; and not only gives distinctness in the minuter parts, but presents us with a field of view far more enlarged and extensive than that of which a weaker power is capable.

If we follow out this through the different modes of activity of the faculty, we shall find it to agree equally with the observed manifestations. For wherein consists the *memory* of Individuality, (the second mode of manifestation of any faculty after simple perception,) but in the vivid, accurate, and distinct recollection of objects and events, in all the parts, *circumstances*, and *details* of which they respectively are made up; such a recollection of these as enables us to communicate them to others with a similar accuracy and distinctness? The conversation of men in whom this faculty is pre-dominantly powerful is accordingly distinguished by a minuteness of detail which, if the higher intellectual faculties are not in proportion, will be dull, tiresome, and insupportable to the hearer. If it is united to a capacity for system and classification, such as is bestowed by comparison, it will enable its possessor to obtain an eminence in all those sciences which are conversant with the details of objects that exist, such as botany, chemistry, mineralogy, zoology, and the other branches of natural history; and it is found, in point of fact, that no one has ever excelled in these sciences without a great endowment of Individuality. If joined to a large Causality, it will give the greatest possible correctness, as well as enlargement of views in the ordinary business and affairs of life, both as these regard nations and individuals. In this combination it is of the greatest use to the lawyer, the legislator, or the political economist. If again it be lighted up and enlivened by Ideality and Wit, it contributes to give to discourse the utmost possible brilliancy and the most irresistible power of fascination.

These higher faculties, no doubt, supply the soul and life to the discourse; but if the Individuality is weak, it is a soul without a body, and the impression which they make is feeble accordingly. When, on the other hand, all the other powers are present in good proportion, a powerful Individuality gives to all that is said an impression of *reality* and completeness which fills and satisfies the mind of the hearer.

In like manner, what is the *Imagination* of Individuality but the power which this faculty has, when vividly excited, of creating new combinations of objects and events, by putting together parts, circumstances, and details, that are separately to be found included in other combinations? In proportion to the particularity and minuteness with which this is done will be the appearance of reality and truth in the new combination. This has been already noticed in the case of Shakspeare's characters, which, as has been stated, are so happily individualized by the fulness and accuracy of their details. And the same may be observed in the characters, portraits, and descriptions which abound in the pages of the most eminent writer of fiction in the present day,—I mean the author of *Waverley*. Individuality, and indeed all the knowing and observing organs, are conspicuous in the mask of this celebrated author, and to this is certainly owing the force, the clearness, and the unrivalled distinctness of all his characters and descriptions. If he is describing a knight, he sets before us not merely his stately demeanour and gallant bearing, but every circumstance of his appearance and dress, from the golden spur that graces his heel to the plume that waves over his brow;—from the steady gaze of his dark-grey eye to the lustre of the gem which sparkles on his finger;—nothing is forgotten, even to the cut of his beard or the colour of his shoe-strings. The consequence of this minute description (enlivened as the whole is by Ideality and the higher intellectual powers) is to set before us the persons described in their very “habits as they lived,” and to render our conception of them little less vivid than if we were ushered into their actual presence. The characters, the manners, and the language of the times are no less distinctly individualized than the persons; and the effect of the whole is to produce to the mind a deception perhaps the most complete in its way that has ever been accomplished by any effort of genius. In this sort of mental phantasmagoria there pass in review before us *Cœur de Lion* and all the chivalry of Palestine,—the more

peaceful glories of the court of Elizabeth,—the reckless profligacy that disgraced that of the second Charles,—or the dull German etiquette that illustrated that of the second George. We are introduced into the scenes not as listeners, but as spectators; we have as distinct and vivid a conception of a tournament as of the performance at Astley's, and become as well acquainted with the purlieus of Whitefriars as with the precincts of St Giles's, or the sanctuary of Holyrood-house.

The faculty we are now considering is a necessary one for a novelist, or for any one who would excite an interest in fictitious adventures. We can take no interest in mere abstractions and shadowy imaginations, without form and substance, nor can our feelings ever be truly called into action until real men and women, or something extremely like them, are presented to our view. All great novelists have possessed more or less of this talent of individualizing their conceptions, and have succeeded, other things being equal, nearly in the degree in which they have possessed it. It is observed by an eminent critic (*Edinburgh Review*, vol. xxiv. p. 329), that "the characters in Don Quixote are strictly individuals; that is, they do not belong to but form a class by themselves." The knight himself, he observes, "always presents something more stately, more romantic, and, at the same time, more real to our imagination, than any other hero upon record. His lineaments, his accoutrements, his pasteboard visor, are familiar to us as the recollections of our early home. The spare and upright figure of the hero paces distinctly before our eyes, and Mambrino's helmet still glitters in the sun." Of Fielding the same writer observes, that "he has brought together a greater variety of characters in common life, marked with more distinct peculiarities, and without an atom of caricature, than any other novel-writer whatever."—"The truth of the imitation is indeed so great, that it has been argued, that Fielding must have had his materials ready made to his hands, and was merely a transcriber of local manners and individual habits. For this conjecture, however, it is added, there seems to be no foundation. His representations, it is true, are local and individual; but they are not the less profound and natural." There is one writer, however, who goes beyond all that have yet been mentioned in the minuteness of his descriptions, both of persons, characters, and events. That writer is Richardson, "about whose works," the critic already quoted observes, "there is an ar-

"tificial reality which is nowhere to be met with. This author," he says, "had the strangest matter-of-fact imagination that ever existed, and wrote the oddest mixture of poetry and prose."—(This is as good a description as can be given of Richardson's genius, which seems to have been compounded of about equal portions of Ideality and Sentiment, with an overwhelming power of Individuality.) "He does not appear to have taken advantage of any thing in actual nature, from one end of his works to the other; and yet throughout all his works (voluminous as they are,—and this, to be sure, is one reason why they are so), he sets about transcribing every object and transaction as if the whole had been given in on evidence by an eye-witness. This kind of high finishing from imagination is an anomaly in the history of human genius; and certainly nothing so fine was ever produced by the same accumulation of minute parts."—"We cannot agree that this exactness of detail produces heaviness; on the contrary, it gives an appearance of truth, and a positive interest to the story, and we listen with the same attention as we should to the particulars of a confidential communication. We, at one time, used to think some parts of Sir Charles Grandison rather trifling and tedious, especially the long description of Miss Harriet Byron's wedding-clothes; till we met with two young ladies, who had severally copied out the whole of that very description for their own private gratification. After this we could not blame the author. "The effect of reading this work is like an increase of kindred. You find yourself all of a sudden introduced into the midst of a large family, with aunts and cousins to the third and fourth generation, and grandmothers both by the father's and mother's side; and a very odd set of people too, but people whose real existence and personal identity you can no more dispute than your own senses, for you hear all that they do or say."—Of the effect of this elaborate finishing, in another of his novels, it is said, "that probably never sympathy more deep or sincere was excited than by the heroine of Richardson's romance, except by the calamities of real life. The links in this wonderful chain of interest are not more finely wrought, than their whole weight is overwhelming and irresistible."

It is time to pass from the mere description of the effects which may be produced by the activity of this faculty, and to bestow some consideration on the internal machinery by means of which the faculty is itself called into action. It would be difficult, perhaps, to explain this more accurately, than by saying, that it nearly corresponds, in all material respects, with what Dr. Brown has stated regarding the pheno-

mena of *simple suggestion*. But Phrenology affords data for a shorter, a simpler, and a more satisfactory account of it than is given by Dr Brown, in the mutual influence which the different faculties have upon one another. Individuality is acted upon by all the other faculties, and exercises a reciprocal influence upon them in its turn. During our waking hours, a succession of ideas, images, or notions of objects or events is passing under the review of this faculty; in other words, this faculty is existing successively in all the different states which give rise to those feelings in the mind which we express by these words, "Ideas, Conceptions, or Notions." What is the cause of this constant succession of ideas, and what is it that regulates the order in which they succeed each other? Former metaphysicians attributed this to association, and imagined that our thoughts were linked together in some mysterious way, so that one idea was necessarily followed by another, to which it was previously attached or associated somewhat in the manner of the links of a chain. It was a great improvement which Dr Brown effected in changing the term *association* for *suggestion*, thereby ridding us of a theory which is false in itself, and inadequate to account for the phenomena, and furnishing a term which merely expresses the fact, without encumbering us with any theory. The laws of suggestion, as explained by Dr Brown, seem to furnish an account of the phenomena of thought nearly as accurate as it is possible to arrive at. First, What he calls the primary laws of suggestion, corresponding very nearly with the laws of association, observed by Mr Hume and other writers, namely, *contiguity of time or place, resemblance, causation, and contrast*. Of these he discards *causation*, I think improperly, on the ground that it falls within the head of *contiguity*. I have elsewhere observed, that if this be taken as an accurate statement of the primary laws of suggestion, it cannot fail to strike us as having a remarkable correspondence with the situation of Individuality in the forehead, surrounded as it is with the organs of Locality and Time, Compari-

son (or the sense of resemblance), Causality, and Wit (which last there is reason for believing to be the sense of contrast.) It is impossible to regard as a mere accidental coincidence, that these principles, which are stated as furnishing the primary laws that regulate the succession of our thoughts, should be exactly those (and no more) of which the organs surround and touch on every side the organ of Individuality; that faculty which may be termed the very focus, centre, and storehouse of all our ideas and of all our knowledge.

But these which have been termed the primary laws of suggestion are hardly more important, nor exercise a more vital control over the succession of our thoughts, than what Dr Brown calls the secondary laws, and which consist of the influences possessed by the feelings and sentiments in conjuring up ideas with which they are respectively connected. Dr Brown's account of this secondary principle of suggestion corresponds most accurately with the phrenological doctrine of the activity of the propensities and sentiments, and the effects of this upon the train of our thoughts. Thus, if we take the case of a tender mother, in whom Philoprogenitiveness, originally powerful, is in a state of high activity, we know that the consequence of this will be, that her thoughts will be almost constantly directed to her children, and that, whether present or absent, in health or in sickness, sleeping or waking, in all places, in short, and under all circumstances, her children will ever occupy the first place in her thoughts, and the idea of them will never be altogether out of her mind. In like manner, an avaricious or covetous man, in whom Acquisitiveness is the ruling propensity, will be constantly thinking of his money-bags, his bonds, bills, and outstanding debts, his lands, tenements, and hereditaments, and will ever be occupied in contriving some new scheme to increase his stores. The voluptuary thinks of untried scenes of pleasure,—the benevolent man of some means of alleviating distress, or of some new object of misery he has met with in his walks. It is needless to go over all the list of feelings and sentiments, for the principle, it is perfectly obvious, applies to the whole

of them. Individuality, or rather the knowing faculties in the gross, may be stated as resembling the board of the magic lantern, and the propensities and sentiments supply the machinery by which the figures upon it are made to appear and disappear. It is at their bidding, potent as the spell of the enchanter, that they "come like shadows, so depart." We must all feel that they are not always obedient to our will, but, according to the strength or number of the predominantly active feelings, they sometimes crowd upon us with a rapidity that confounds us, and baffles any effort to arrest their course or ascertain their connexion; and at others one exclusive object will maintain an obstinate pre-eminence, in spite of all our endeavours to banish it or supply its place by higher and more agreeable matter.

As it is true, on the one hand, that the propensities and sentiments, as they happen to be in activity, whether singly or in combination, exercise a strong influence over the ideas presented to us by Individuality; so, on the other, the ideas, impressions, images, or whatever else we may choose to call them, which Individuality presents to us, possess a no less powerful influence over the feelings, *i. e.* the propensities and sentiments. None of these are affected or excited in any very lively way, except through the instrumentality of this faculty, and the impressions which it presents to us. The abstract qualities of Matter, Form, Colour, Size, Weight, Order, and Number, are not calculated to excite any of the propensities and sentiments. As little so are those subtle distinctions, and relations of things, the pure abstractions of intellect, which we arrive at by means of Comparison and Causality. The only exception is Tune, which seems to exercise a sort of influence over the feelings; but this is a dark, indistinct, and shadowy sort of influence, quite different from that which is excited by the objects presented to us by Individuality. It is individuals, and individuals alone,—individual objects and individual events, which possess any real power of interesting the feelings, which is only another name for exciting the activity of the affective faculties; and it is

they which alone are capable of rousing the passions. It is *individuals* alone (still including under that general designation either objects or events) that excite either Amativeness, or Philoprogenitiveness; or Combativeness, or Destructiveness, or Acquisitiveness, Cautiousness, Hope, Wonder, Veneration, Benevolence, Imitation, or Ideality. The object of Constructiveness is to produce an *individual* whole made up of parts. The other faculties, Secretiveness, Self-esteem, Love of Approbation, and Firmness, have all a reference to *individual* objects with which we are surrounded, and to the *individual* circumstances in which we are placed. If No 3 is to be regarded as Inhabitiveness, it carries our thoughts to an *individual* home. If as Contentativeness, its function is to concentrate all our powers and faculties as one *individual* subject. Every thing we love, and every thing we hate, every thing we desire, and every thing we fear, is an *individual*. It is by Individuality, therefore, and by what is presented to the mind through Individuality; that all our feelings are excited and brought into activity; and, therefore, Gall had no little reason to term it the organ of Educability; for, if by means of this organ only the mind can be affected, it must follow, that by means of it alone it can be educated.

When we consider this it will not appear wonderful; but, on the contrary, it will seem to follow as a necessary consequence, that those writers and speakers should be most able to interest their readers or auditors who possess a large endowment of this power, and by means of it are able to present strong and vivid pictures of individual objects and events to the Individuality of others. It is this that gives the strong tendency that has appeared, in all ages, of *personifying* abstract notions and qualities, such as particular virtues and vices; and it is this, joined to the difficulty of conceiving a merely spiritual existence, that has given rise to the irresistible propensity of all savage nations to *individualize* their conceptions of the Supreme Being by visible representations of him by pictures or images. And to this principle,—the absolute

impossibility of affecting the feelings, excepting through the means of an *individual* object presented to the mind, or, at least, to the imagination, as much as to mere ignorance, and to the imperfections and degradations of his faculties,—are owing all the monstrous errors and absurdities of heathenism and idolatry. It has been suggested as one of the final causes of the Christian system, presenting to our contemplation as the highest object of our veneration, and as the nearest approach which can be made to affording us a conception of the perfections of the Deity, ONE INDIVIDUAL LIVING MAN,—that such an object of contemplation affords the only natural means of interesting the heart and the affections, and of superseding the necessity and the use of all other visibles and tangible objects of worship. The same principle has perhaps been one of the many natural causes of the great success which for a time attended the religion of Mahomet; that, by presenting himself to his followers as the prophet of God, and an object of worship, he afforded them an *individual* definite object on which their veneration might expand, without being dissipated by unavailing attempts to comprehend or to adore one simple, uncompounded, or uncreated essence.

We have now treated of the *perception* of Individuality, that is, the perception of a *whole*, which is made up and compounded of various parts and qualities, as that alone which renders the perception of our other faculties of any use to us. We have treated of the *memory* of Individuality, and we have treated of the *imagination* of Individuality. We have treated of the laws which regulate the succession of individual images or ideas,—of the effect of the activity of the propensities and sentiments, as modifying and regulating this succession,—and of the reciprocal effect of this power, and the ideas it presents to us in exciting to activity the different propensities and sentiments. It only remains to treat of the *judgment* of Individuality, and of the manner in which successive judgments may be formed, so as to produce what may be described as the reasoning of Individuality.

We have had occasion to remark, when treating of Comparison, that all the intellectual faculties possess, in some degree, the power of comparing. The sense of Form compares forms, and remarks their resemblances and differences, otherwise it could not distinguish one Form from another, or recognise a form it had observed before. Colouring must have the same power of comparing colours,—Tune, of comparing musical sounds,—Number, of comparing numbers, and so on, each faculty being limited in its power of comparing by the nature of the objects or qualities which it is its special function to observe. Comparison, on the other hand, seems to possess an unlimited power of comparing things and qualities that differ from each other in the widest possible degree, and to take within its grasp the whole range of nature. In a middle place, between these, is Individuality, whose function it is to observe and consider *individual* objects and events, each as a *whole*, comprising a variety of *parts*; and we may therefore conclude, that it possesses a power of comparing *individuals* to each other, and of observing, to a certain extent, the resemblances and differences between them. It is not by this faculty that we discover the more remote analogies of things, that the poet forms his similes and metaphors, or the philosopher draws his illustrations; but it is quite sufficient to enable us to see the more obvious resemblances and differences of things. For instance, it does not seem to require any higher faculty than this to enable us to see that one horse has a much greater resemblance to another horse than it has to a dog or an elephant, and that these three animals are all more nearly like to one another than any of them is like to a house or a tree. Upon this principle,—the power of comparing together different individuals and their different parts, the corresponding qualities of which they are possessed, and the different degrees in which they possess these qualities,—depends, in a principal degree, the *judgment* of Individuality. It is this, joined, no doubt, with a sufficient endowment of the lower perceptive powers,

which gives the faculty of judging or choosing between one individual and another, what is that upon the whole which is most desirable ;—and that this power is conferred by Individuality is made in the highest degree probable, by an immense multitude of observations ; for every day's experience may enable us to see that those who possess the most accurate and distinguishing judgment of this kind are not those in whom the higher intellectual faculties are predominant, but those in whom the lower observing powers and Individuality are most fully developed. In choosing a horse, for instance, so far is it from being true that a high degree of reflective endowment, of Comparison, Causality, and Wit is necessary for the task of judging with accuracy, that it would rather appear that these faculties in high endowment do in a great measure unfit their possessor for very accurately judging in this department. These faculties attract the attention to higher objects, and prevent that exclusive and undisturbed observation of individual objects and sensible qualities which is absolutely necessary to the acquirement of this species of judgment. Accordingly, we all may have heard or witnessed the most egregious errors committed in matters of this kind by men of the greatest talents ; and I may appeal to the observation of every phrenological reader in saying, that the best judges in every thing of the sort are invariably men with knowing heads ; those, namely, in which the knowing organs, and more particularly Individuality, greatly predominate over the reflecting part of the development. On the other hand, I have observed very accurate and discriminating judgment in matters of this kind in heads where the development of the reflecting organs was almost a nonentity.

Another principle on which the *judgment* of Individuality depends, arises from the expectation, almost universal, not peculiar to man, but common to him and every tribe of intelligent sentient beings,—that what has been once will be again, under the same or similar circumstances. This ex-

pectation has been attributed to Causality, but I think erroneously. It seems to be an instinctive feeling, not derived from any effort of reasoning; and it is a principle so necessary to the preservation of every living creature, that it is too important to be trusted to the reasoning faculties. Children act upon this principle almost from the first moment of their existence; it is a proverbial saying, as old as it is true, that "burnt children dread fire;" and the same is observed of animals; and in both it seems to operate as immediately as certainly, and with as full, and complete effect as in the greatest and most profound philosopher. Lord Bacon, or Socrates, were not more completely and thoroughly convinced that the fire which had burnt them yesterday would do the same if they touched it to-day, than the child in the arms of its nurse, or the cat sitting in the chimney-corner. It is clear that this is a feeling which bears no proportion whatever to the extent of the Causality, and therefore we may conclude that it does not at all depend upon Causality. I shall state some reasons for thinking that it depends upon Individuality.

We have stated, that Individuality is the power of considering objects and events in the *concrete*, that is, each as a *whole*, including various *parts*, and possessed of various *qualities*. Now it seems obvious, that, without the expectation we are now speaking of, we never could acquire a knowledge of the qualities of objects at all. We see a piece of lead, and on taking it up we find it to be heavy. On seeing another piece of lead, we expect that, if we were to lift it, it would also be found heavy; and without this expectation, which seems to be immediate and instinctive, we never could arrive at the knowledge of the fact, that lead is a heavy substance. We might take up a thousand pieces of lead, one after another, but, unless we arrived, at some step of our progress, at a point where we began to feel an expectation that the next piece of lead we take up will feel heavy in our hand, we must be doomed to repeat the same experiment

for ever without any increase of knowledge. We would only know that all the pieces of lead we had lifted were heavy, but we could not know or foresee that the next piece of lead we were to lift should also be so.

It follows from this, that Individuality would be a useless faculty, unless it were attended with this kind of expectation, naturally, instinctively, and immediately; and it seems to be in consequence of its being attended with this sort of expectation that it is the faculty we find it to be. Without it, I beg that it may be observed again, we never could know the qualities of any individual in existence. This knowledge can only proceed from the expectation that the qualities of objects are permanent. Without this we could not even know that the lead which had felt heavy in the hand one minute was to feel equally heavy the next. It is observed by Drs Gall and Spurzheim, that curiosity is one of the symptoms of the activity of this power,—that it desires to know the *qualities* of every object; but vain would be this desire, and altogether useless would be the knowledge when acquired, unless we had not only the feeling that the qualities perceived in an individual object are permanent in that individual, but also that other objects of the same kind, and possessing the same individual external characters, will be found also to possess the same internal qualities. The fire that burnt the child yesterday, as Dr Brown observes, is not the same fire that he dreads and avoids to-day, but it possesses so many of the same external characters as to leave him no doubt that it is in reality the same substance, and to suggest, instantaneously, the expectation or the fear that it possesses the same quality of burning which he experienced before.

This expectation, then, not only lies at the bottom of all our reasoning about cause and effect, but of all our knowledge of every kind, respecting the properties of material objects; and if it be admitted that Individuality is the faculty which enables us to perceive and conceive objects as per-

nessed of *various qualities*, it must of necessity include this expectation, as without it we never could recognise an object as possessed of any qualities at all. Without this expectation or feeling,—that the same individual substances will, under the same circumstances, continue to manifest the same qualities; in other words, that what has been will continue to be, and, under the same circumstances, will always be,—we could have no confidence or belief in the reality or existence of the external world, or indeed of any individual thing whatever. We could be conscious of nothing but a floating and confused heap of sensations, without order, coherence, or connexion, and the experience of the past could communicate to us no knowledge or understanding of what was to be in future.

In consequence of this expectation of the permanence and consistency of the qualities of objects, we are enabled, by the experience of the past, to judge, and, within certain limits, to judge with very considerable accuracy, what will take place in future. Every thing we do which has any reference to external nature, is in fact the repetition of an experiment, which has been performed by us before, a greater or a less number of times, and with more or less success; and our success in it depends upon the accuracy with which we attend to all the circumstances necessary to produce the effect we intend. Individuality, which, as we have seen, includes the power of taking in and keeping in view a *combination* of circumstances, is just the sort of faculty which is most essential in all the ordinary affairs of life; as, for instance, in the details of domestic economy, in the arts of cooking and preserving, in the sports of the field, in fishing and hunting, and in almost every thing which forms either the employment or the amusement of ordinary people, Individuality is the great intellectual power employed, and almost all the judgments which are formed in reference to these arts are the judgments of Individuality, enlightened and improved, not by reasoning, but by experience.

But although humble the subject of these judgments, they

are neither unimportant to the total mass of human comfort and happiness, nor is the acquirement of a readiness, and facility, and accuracy in forming them an attainment of so cheap and easy a description as may by some be imagined. Those who have not observed it are not aware of the extent to which the knowing faculties may be improved in forming this species of judgments, and of the prodigious difference in this respect between one man and another. When the powers are originally good and well cultivated by exercise, the judgment will then be brought to its highest degree of perfection. This sort of acquired judgment is the source, in a great measure, of the superior dexterity which a man bred to a profession acquires over one who has never tried it. The judgments which old farmers and shepherds form of the weather are of this description. They are not founded on reasoning, and the persons themselves can assign no reason for the judgments they form; but they are not on that account less accurate or less to be depended on.

The sort of judgment I am now speaking of, which Individuality exercises, when assisted and improved by habit and experience, is found generally in the greatest perfection among persons in the lower ranks of life,—men without education, but with a large endowment of the knowing powers. Persons of this description are generally far more dexterous and successful in those sports which their superiors wish to monopolize to themselves than the gentlemen for whose recreation this monopoly is attempted to be secured. The black fisher is a much greater adept in the art of ensnaring the finny tribes than the most ardent disciple of the facetious Mr Isaac Walton; and the poacher, were he inclined to boast of his exploits, could probably put to shame the most expert of the lords of the soil, who bets thousands upon his being able to bag a hundred birds a day. Perhaps both may be excelled in either department by the North American savage. Nature, in short, seems in this, as in all her other operations, to act to her sons in the way of compensation, and to have decreed, that those

in whom the higher faculties are most deficient should possess in the highest perfection the use of the lower. In savages the sort of instinctive judgment I am here speaking of is often found so acute as almost to make it appear as if they were possessed of some other senses than those with which we are acquainted. It may be, that the external senses themselves may, in consequence of the intense exertion imposed on them by necessity, be improved to a degree that we cannot appreciate. But much of what we hear of the sagacity with which they find their way for hundreds of miles through trackless forests, and the skill they show in pursuing and destroying their game, is owing to that acquired judgment we have been speaking of, and which we have called the judgment of Individuality.

A third species of judgments formed by means of this power are those which proceed directly from the propensities and sentiments. We have stated, that this power forms the grand means of communication between these feelings and the external world. It is the opening through which the objects and events which are passing around us obtain access to excite the feelings and call them into activity. When an object, then, of any kind, fitted to excite any of our feelings, is presented to Individuality, that feeling is affected accordingly; and Individuality, on the other hand, is conscious of that affection, and pronounces it to be of such or such a nature, pleasant or painful, as the case may be. Thus, when we see a poor creature clothed in rags, and starving with hunger, Benevolence is affected; we feel the emotion of pity, and feel inclined, if it is in our power, to relieve his distress. In this case we pronounce two judgments; first, that this object is unhappy, and, second, that it is our duty, if we can, to relieve him. If we see a third party passing, puffed up with pride, turning away from this object with scorn, or repulsing his complaints with rudeness and insult, our Combativeness and Destructiveness are roused against this individual, and we pronounce him to be hard-hearted, selfish, and cruel.

It is needless to quote more instances of these sorts of feelings, which are formed directly by the propensities and sentiments as soon as the appropriate objects are presented to them by Individuality, and of which Individuality, in its turn, being conscious, puts it into the form of a *proposition* or *judgment*, without the intervention of any process of reasoning. These are called, in ordinary language, the dictates of common feeling or common sense; and the facility and accuracy with which they are formed depend partly upon the distinct comprehension of the objects, events, and circumstances which call them forth, and partly upon the proper balance of the feelings themselves, which are called into action in the course of the operation. It may happen that we may judge wrong in consequence of not understanding or not attending to all the circumstances, or we may judge wrong from some one or more of our feelings being in too great or too little activity, too powerful, or not powerful enough. If the circumstances are complicated, it may require some time to arrive at a correct judgment. The first appearance may lead us to form one judgment which subsequent information may lead us to alter; another and another circumstance may lead us to incline alternately to one or other side; and it is not until *all the circumstances* are fully known and sifted, and the different feelings which these tend to excite duly weighed and mutually appreciated, that a judgment is finally formed on which we can safely rest. This may be called the *reasoning* of Individuality. In this sort of reasoning the links are not cemented together by a chain, nor do we arrive at our conclusion by successive steps depending on one another: they are, on the contrary, placed side by side; so that the addition of another link, instead of weakening the conclusion by removing it farther from the premises, adds additional force and strength to the connexion. But I shall not treat farther here of the share which Individuality has in reasoning; but delay what I have to say on that subject till I have finished the examination of the higher intellectual powers, and then I

shall endeavour to show how the whole unite and co-operate towards the formation of what is called a chain of reasoning.

I have not yet taken notice of the distinction which is supposed to exist between the Higher and Lower Individuality. It has been observed, that the space originally assigned to this organ is not always equally developed throughout, but sometimes the upper part, occupying the middle and lower part of the forehead, is much developed, while that part lying immediately between the root of the nose and the junction of the eyebrows is less so, and *vice versa*; from which Dr Spurzheim and others have concluded that there are two organs. They are not agreed, however, as to the difference of their functions. Dr Spurzheim conceives that the lower organ is conversant with objects and the higher one with events. Mr Combe, on the other hand, states the result of his observations to be, that the lower organ is large in those who are extremely observant of what is occurring around them, and that the higher is large in those who are fond of general information, and who have a great talent of remembering facts recorded in books or narrated by men. Mr Welsh supposes that the lower may be the organ of motion; but for this supposition I have seen no kind of evidence. Observations are, perhaps, yet too limited to enable us to decide with any certainty; but, perhaps, the opinions of Dr Spurzheim and Mr Combe may be both of them very nearly correct, and that, by a slight modification, they may be reconciled to one another. The talent for observing and remembering *events*, and that for collecting *general information*, and for remembering *facts* recorded in books and narrated by men, seem to be nearly, if not entirely, the same. The talent for observing *objects*, and for observing what is *before our eyes*, seem also much alike. Both faculties might seem to be explicable upon the principle that I have endeavoured to unfold, namely, the power of *comprehending a combination of parts united so as to form a whole*; only it is possible that in the lower this combining power may be more strictly confined to observing combina-

tions of *qualities* and the higher combinations of parts ; or the lower may be limited to that sort of strict combination of parts and qualities which forms an *individual object* ; the higher may extend to those larger and more extensive combinations which go to form a *group*, a *series*, or a *system*. This seems to correspond sufficiently with the observations both of Dr Spurzheim and Mr Combe. Dr Spurzheim has observed the upper organ large in those who are conversant with the details of history ; Mr Combe has observed it large in botanists and those who are fond of the study of natural objects. Both of these kinds of study depend upon *grouping* and *combinations* ; the one in the order of sequence, and the other in that of co-existence, while both seem to admit that the lower power takes notice of objects as insulated facts merely, as they stand by themselves, without any reference to other objects. It is also quite conformable to analogy, that the organ whose function is most extensive and general should occupy the higher and more eminent situation ; that the lower power, which is most nearly connected with the perceptive powers of Form, Colour, &c., should lie contiguous to the organs of those powers ; while the higher, which is more allied to the greater operations of intellect, should be contiguous to the organs of the reflective faculties. This is perhaps as near as we can come to the ascertainment of the different functions of the two Individualities in the present state of our knowledge.

ARTICLE VIII.

SKULL OF A CHINESE ASSASSIN, AND SKULL AND BILL OF THE TOUCAN BIRD OF PREY, IN THE MUSEUM OF THE PHRENOLOGICAL SOCIETY.

(The Donation of WILLIAM BRENNER, Esq., H. E. I. C. S.)

THERE is not in the collection of the Society a more valuable skull than the Chinese one now before us. Besides corresponding with the native type, of which we are now in possession of several specimens, indicating the Chinese character of pride and vanity, and exhibiting Form, Size, Individuality, Constructiveness, and Imitation, it displays, to extreme development, that unhappy combination of feelings which gives a tendency to revenge, even by murder; and, moreover, to commit murder without running the risk of resistance; in other words, by assassination. When the box containing the skull arrived from London, a Phrenologist present, who was only told that it was the head of a murderer, took it in his hands, and said that the murder would be by poison or assassination. The following account of it was immediately read from the letter of Mr Bremner, the donor, to Mr Simpson:—

“London, 20th September, 1827.

“DEAR SIR,—Here is the Chinese skull which you recommended me sending to Mr Combe. The history briefly is, that the man was executed at Batavia, for murder committed from a revengeful feeling towards a man, whom he *stabbed in the dark*, and merely on account of a *suspicion* he entertained of this person having done him an injury; and so great was his *cunning* that he for some time, indeed nearly altogether, escaped justice. According to my promise I send you also a section of the Toucan's head and bill, which I made with as much care as possible; but I observe there is a little infection of the saw-blade.”

The character of secret murder was inferred, as every Phrenologist knows, from an unusually preponderating ani-

mal organization, especially in Destructiveness, with Combativeness or Courage deficient, Secretiveness very large, and Cautiousness large even to deformity. To such a brain it would have been very difficult to face the object of its revenge in mortal combat. But the excited animal sought gratification, and safe and secret stabbing in the dark was resorted to. It is said to have been done on *suspicion* only of injury. This comes from great Secretiveness, which leads to suspicion; and, when diseased, produces that peculiar form of hypochondria which lives in constant belief of plots and conspiracies, and is so common in the most dangerous of all maniacs, the jealously-revengeful. Conscientiousness, in the skull of this unhappy being, is inferior to the selfish feelings,—an essential feature of the jealous character; and so small is Hope, and so large is Cautiousness, that we may conclude it probable that he presented a spectacle of gloomy and moody despondency. There is a rickety twist in the occipital region, which is not favourable, and this in addition to the great balance of animalism over the slender intellect, and yet more moderate human sentiments. The posterior lobe, or brain behind the ear, including Self-esteem, Love of Approbation, and Cautiousness, is excessive. The middle is likewise very large, occasioned by Secretiveness and Destructiveness; but the diminution is great and abrupt when we ascend to the human sentiments of Conscientiousness, Hope, Ideality, and Benevolence. The last-mentioned organ presents a very rapid slope from a large Veneration; which latter feeling in such a brain would be woefully misdirected and abused. The rapid slope of Benevolence gives an appearance of height to the forehead; but the strictly intellectual powers are very slender, and the forehead proper little better than “villanously low.” It is, besides, very narrow, not much more than one-half of the breadth of the back of the head.

We may observe that the head is above Asiatic size, and

would be proportionally powerful for evil. The Philoprogenitiveness is moderate.

The following is the measurement and development:—

MEASUREMENT.

Spine to 19	6½	Ear to 13	5½
3 to 30	6	6 to 6	6
2 to 19	6½	7 to 7	4½
Ear to Spine	4½	8 to 8	5
Ear to 19	4½	9 to 9	6
Ear to 10	5½	12 to 12	6
Ear to 18	5½	16 to 16	3½
Ear to 14	5½		

DEVELOPMENT.

1. Amativeness, rather large,	16	19. Upper Individuality, full,	15
2. Philoprogenitiveness, r. full	12	19. Lower ditto, rather large,	16
3. Concentrativeness, r. large,	16	20. Form, large,	18
4. Adhesiveness, rather large,	16	21. Size, rather large,	16
5. Combaticiveness, rather full,	12	22. Weight, rather full,	12
6. Destructiveness, extra large,	22	23. Colour, rather full,	13
7. Constructiveness, full,	15	24. Locality, rather large,	16
8. Acquisitiveness, full,	15	25. Order, rather full,	12
9. Secretiveness, extra large,	22	26. Time, moderate,	10
10. Self-esteem, large,	18	27. Number, rather small,	8
11. Love of Approbation, v. large,	20	28. Taste, rather small,	6
12. Cautiousness, extra large,	23	29. Language,	
13. Benevolence, moderate,	10	30. Comparison, rather full,	12
14. Veneration, rather large,	17	31. Causality; full,	14
15. Hope, rather small,	6	32. Wit, full,	14
16. Ideality, rather small,	8	33. Imitation, large,	18
17. Conscientiousness, full,	14	34. Wonder, rather large,	17
18. Firmness, large,	18		

The Toucan's head is curious, in so far as it is many times smaller than the bill. The head is about an inch in diameter, while the bill is a foot long and several inches broad. As a bird of prey, too, it requires a vision like the eagle's, and its eye alone is about the size of, or rather a little larger than the whole brain. It first occurred to us that the curious honeycomb texture in the bill is a process for the prolongation of the olfactory nerve, which, in birds that flock to carrion from a distance, has been considered powerful; but this is a mistake; the texture is a mere diploe to give the bill strength.

It is now ascertained by experiment, that birds of prey

see and do not smell their prey. Very putrid carrion was enclosed in a basket which gave free passage to its effluvia, and put in the way of vultures and other birds of prey. It attracted none of them till exposed to view, when several almost instantly appeared. This sudden appearance is accounted for by these birds soaring at an altitude out of our sight; while their prey on the ground, however minute, is seen by them, so that their appearance at any time is merely their descent to within the scope of human optics. The Toucan, in India, generally arrives for its food with the vulture, but remains a little in the rear till the larger bird is glutted; while smaller birds of prey, at a more retired distance still, pay the same homage to the Toucan. It is said to be amusing to observe the marked and well-understood gradations of rank which they thus exhibit and jealously maintain.

ARTICLE IX.

EVIDENCES AGAINST PHRENOLOGY, BY THOMAS
STONE, ESQ.

WE are requested by Mr Combe to give the following correspondence a place in this Journal, for the information of such of our readers as may not have an opportunity of seeing the Edinburgh newspapers.

LETTER FROM MR GEORGE COMBE.

To the Editor of the Caledonian Mercury.

SIR,—In a recent publication you gave a critical notice of "The Evidences against the System of Phrenology, by Thomas Stone, Esq." and commended it as a formidable attack. The assertions and arguments of which it is composed have been so frequently brought forward by previous opponents, and so fully refuted in the Transactions of the Phrenological Society and the Phrenological Journal, that I consider any farther reply to them as superfluous. I refer particularly to the following articles as containing answers to his ar-

gments, viz.—‘Observations on the Objections of Dr Barclay,’ in the Phrenological Transactions; ‘A Historical Notice of early Opinions regarding the Brain,’ in Phrenological Journal, No 7, article 8th; an essay on ‘Size in the Organs as a Measure of Power in the Faculties,’ in No 14, article 1st; an essay on ‘Materialism,’ in No 1, article 13th; and to the following articles as *specimens* of the evidence on which Phrenology is founded, viz. Phren. Journal, vol. 1st, on Destructiveness, p. 25; on Constructiveness, p. 247; vol. 2d, on Philoprogenitiveness, p. 1; on Acquisitiveness, p. 217; History of the Discovery of the Phren. Organs, p. 450 and 513; on Combativeness, p. 543; vol. 3d, Dr Gall’s Visit to the Prisons of Berlin and Spandau, 297; vol. 4th, on the Organ and Faculty of Locality, p. 524; besides innumerable other articles. Any person who desires to know the real merits of Mr Stone’s work will be quite able to form a sound judgment of its novelty, profundity, and fairness, after perusing the essays here particularly indicated.

I would not have troubled you even with this notice, but for one statement in his Evidence, which directly charges me with imposition. In the Phrenological Journal, vol. iv. p. 388, in reference to my lecture in the Assembly Room, in answer to Sir William Hamilton, it is stated, that I “mentioned to the audience, that Mr Syme, lately lecturer on anatomy, and now on surgery, *who is not a Phrenologist*, had kindly favoured me with the use of *all the open skulls* in his collection, which I then exhibited along with *the whole open skulls* belonging to the Phrenological Society, thereby enabling any individual present, after ocular inspection, to decide for himself on the parallelism of the inner and outer tables of the cranium, as well as on the frequency and extent of the frontal sinus. By using Mr Syme’s specimens the charge of *selection* was obviated; and by producing *all of them*, no room was left for suspecting *intentional omission of any*, while, at the same time, an opportunity was afforded of contrasting *them* with *the phrenological collection*, and detecting any partiality in the latter if it existed.”

On this statement Mr Stone makes the following remarks:—
 “On visiting Mr Syme’s museum, I find that his collection of open crania amounts only to *three*, one of which, being that of an infant of about *two years* of age, would in no wise have affected the present question. Here indeed we might pause to ask what confidence is to be placed upon the authority of men who can have recourse to so *flagrant a misrepresentation* to *misguide their credulous disciples*, and impose on the understanding of the public? What can we think of that system which requires *even its ablest advocate* to defend it by such a miserable expedient?”

One of the greatest advantages which I have derived from Phrenology is a thorough practical conviction that the modes of thinking and acting of individuals bear reference to the development of their mental organs. Hence I view the foregoing sentences of Mr Stone as a characteristic display of a particular combination of organs in

his brain; I freely forgive his unmannerly and unfounded reproaches, and simply request you to publish the following letter for my vindication with the public:—

" To James Syme, Esq.

" Edinburgh, 26th April, 1828.

" MY DEAR SIR,—I beg leave to refer you to Evidences against the System of Phrenology, by Thomas Stone, Esq., p. 56, and to solicit your answer to the following questions:—

" Had I the use of all the open skulls in your museum in my lecture in the Assembly Rooms? and how many specimens were there?—I am, &c.

" GEO. COMBE."

ANSWER BY MR SYME.

" To Geo. Combe, Esq.

" MY DEAR SIR,—I have had the pleasure of receiving your queries, and beg to reply,—

" 1st, That all the open skulls in my museum, which could be transported with safety, were present at your lecture in the Assembly Rooms.

" 2dly, That the number of these skulls was seven.

" I regretted at the time they were so few, but you know that it is not usual for teachers of anatomy or surgery to open any more skulls than they require to display the internal structure.—I remain, &c.

" JAMES SYME.

" 75, George Street, 26th April, 1828."

Allow me to add, that the reason why I applied to Mr Syme was, that I knew he had taken no part in the phrenological controversy; that his collection of skulls was precisely that which he used for the teaching of anatomy and surgery; and hence, that, whatever the number of open skulls might be, they would afford examples of every fact on the internal structure which he considered of importance to his students. To his collection were added an interesting example of a very large sinus borrowed from Dr John Scott, and *eleven or twelve* specimens from the Phrenological Museum; several of which were presented to the Society, for the purpose of exhibiting the sinus in large dimensions; so that no charge could be more unfounded and unmerited than that I deceived the public on the occasion alluded to.—I am, Sir, your obedient humble servant,

GEO. COMBE.

P. S.—Since writing the foregoing letter, I have received the following note from Mr Syme:—

"To George Combe, Esq.

"MY DEAR SIR,—On looking over the skulls in my museum more carefully, along with Mr Stone, I find that there were *eight* open crania at your lecture in the Assembly Rooms, and not *seven*, as stated in my answer to your note of the 26th.—Yours ever, &c.

"JAMES SYME.

"75, George Street, Wednesday, 30th April."

LETTER FROM MR STONE.

To the Editor of the Caledonian Mercury.

SIR,—In reply to a letter from Mr Combe, which has appeared in your paper, I beg leave to state, that I decidedly do not consider myself at all responsible for any mis-statement contained in "The Evidences against the System of Phrenology," respecting the number of open crania in Mr Syme's museum. In consequence of the imposing account given by Mr Combe of the crania in the possession of that gentleman, I visited his museum, not with the intention of inquiring how many open crania it contained, but with the intention of examining the frontal sinuses in the many specimens which, from the statements already alluded to, I expected to find. I applied, therefore, to Mr Syme himself on the occasion, who politely referred me to his assistants, stating, that they would give me every information I desired. I was then shown the *three* open crania, to which I have before adverted, and was informed that they were all the specimens of the kind in the museum. I now perceive that Mr Syme, in reply to Mr Combe, has stated, *first*, that all the open crania "*which could be transported with safety*" from his museum were present at his lecture, and the number of these was *seven*; and, *secondly*, He has addressed another letter to him, stating that the number of these was *eight*. I need simply, therefore, remark, that as Mr Syme was himself deceived after Mr Combe's application, and has given that gentleman two different statements, so was I, in the first instance, misled, and I do not consequently consider that my own veracity can, in the slightest degree, be impeached.

I am exceedingly happy that the mistake is rectified, but must distinctly avow that this explanation does not at all exonerate Mr Combe; for even taking the *maximum* of these skulls at *eight*, I do not conceive so small a number as this would warrant the language he has used respecting them. On the contrary, the disingenuous nature of his present communication involves him only in a deeper difficulty. The question at issue between us relates to the number of these crania that exhibit the frontal sinus, as the charge brought against Mr Combe is that of having announced to the public that he refuted Sir William Hamilton's objections respecting the frontal sinus, not only by the specimens belonging to the Phrenological So-

ciety, but by "*all the open skulls*" of a private "*collection*;" whereas this private collection is withal so exceedingly limited, that his manner of alluding to it is calculated only to deceive. To prevent any misunderstanding—as the charge is a serious one—I beg to adduce an additional part of Mr Combe's *own* statement,—“ In presenting (says he) examples of the sinus to the audience, I called their attention to the fact, that in most of them it *was so small as not to be perceptible to the eye in the distant parts of the room*, even in skulls *sawed open*, and remarked, that if I had produced the specimens offered by Sir William Hamilton, which were not allowed to be opened, and explored the sinus through holes not larger than pin-heads, as proposed by him, no ocular demonstration could have been enjoyed even by the nearest individuals; that *as the stronger evidence was always to be preferred to the weaker*, I had used Mr Syme's specimens, which, while not liable to any charge of partiality, spoke to the eye.” Here all Mr Syme's specimens are unquestionably referred to, without any qualification, as fairly exhibiting the frontal sinus, and the public has now been informed, that the number of these crania amounted to *eight*.

The letters that have at length stated this to be the number are given by Mr Combe without any explanatory observation; and I now therefore beg leave to state, that, having examined these *eight* skulls, I find the frontal sinus is only cut open in *four* of them. One is the skull of the young infant which I formerly referred to,—another is actually that of a *fetus*; neither of these are, in any way, connected with the question under discussion, and do not answer to the description of skulls which Mr Combe has given in the preceding extract. We next find two adult skulls which are cut open horizontally, and although the sinus exists in both, in neither of them is it cut open at all. It is true—and the emergency of the case might possibly suggest the reply,—that these might have been adduced as negative evidence, to show that in these particular examples the sinus does not extend so high as it frequently does; still neither of these skulls corresponds with the description given by Mr Combe; in neither of them could the sinus have been pointed out, “ *so small as not to be perceptible to the eye in the distant parts of the room* ;” neither of them could have been described as preferable to the specimens of Sir William Hamilton, in which the sinus was bored open so as to admit of being probed in every direction; in neither of them surely could the frontal sinus have “ *spoke to the eye*” even of the nearest individual; the consequence is, that the number of these crania which exhibit the sinus, as described by Mr Combe himself, are, after all, reduced to *four*. It may be worthy also of remarking, that these four do not afford the slightest evidence against Sir William Hamilton's anti-phrenological propositions, but, on the contrary, tend to establish them.

As my statement originally stood, Mr Combe himself acknowledges that it charged him “ *directly with imposition* ;” and now, what is the difference between that and my present statement?

On my *first* visit to the museum I was shown—

2 Adult skulls—frontal sinus open.

1 Infant skull.

On my second visit, in addition to these—

2 Adult skulls—frontal sinus open.

2 Adult skulls—frontal sinus not open.

1 Fœtal skull.

There is, accordingly, after all, so far as the present question is concerned, only an addition of *two* skulls; and if my former statement, as Mr Combe confesses, conveyed against him a charge of "*imposition*," the present facts must tend strongly to confirm it.

The disingenuousness of Mr Combe's observations respecting "*all the open skulls*" of this private "*collection*,"—the assertion that he, by adding them to those belonging to the Phrenological Society, which he acknowledges amounted to only "*eleven or twelve*," and that he was thereby enabled to refute Sir William Hamilton, is rendered more striking from the fact, that the induction which he professes to have thus refuted was drawn from a collection of from *seventy to eighty* cranial specimens, which Sir William Hamilton exhibited in his lecture at the College. On the other hand, in Mr Syme's specimens, which, at their *maximum*, amount only to *eight*,—*six* only possess the sinus at all,—and in *four* only it is exposed. In referring to these, *after* his lecture, it is, that Mr Combe, carefully suppressing the number, announces to his readers, that because he wished to obviate "*any charge of partiality*," and because "*the stronger evidence was always to be preferred to the weaker*," he brought down to his lecture the *whole* of this private collection.

It must be very obvious to every one, that Mr Combe, in condescending to resources of this kind, exposes sadly the weakness of the cause he so strenuously advocates; for neither his original statement, nor present evasive communication, is calculated to convey to the public the distinct and complete truth. In conclusion, I have only to add, that so conscious am I of my own rectitude in this matter—so fully convinced that Mr Combe has established every thing—and even more than I before alleged, respecting this misrepresentation, that I shall not hesitate to have his reply, with the present further explanation, printed and subjoined to my essay.—I am, Sir, your most obedient servant,

THOMAS STONE.

May 1, 1828.

P. S.—I have, in the above letter, contented myself with stating merely *facts*, and contrasting them with Mr Combe's *own* statement; I now therefore leave your readers to draw their *own* conclusions, and do not intend entering into any farther controversy on *this* subject.

REPLY BY MR COMBE TO MR STONE'S LETTER.

To the Editor of the Caledonian Mercury.

SIR,—With reference to the letter by Mr Stone, allow me to remind your readers, that Mr Syme lectured on anatomy; and that his collection was such as to show, impartially, all that he thought requisite to be taught respecting the internal structure of the skull. He authorises me, in particular, to say, that “all the *eight skulls* either showed a sinus, or showed that it was wanting, or extremely small,” and that the skull which Mr Stone describes as “that of an *infant* about *two years* of age,” was that of “a *child six years* old.” In his pamphlet, Mr Stone not only asserts that the number of Mr Syme's open skulls was *only three*, but, on this error of his own, he proceeds to accuse me of “flagrant misrepresentation,—to misguide disciples,”—and “impose on the understanding of the public.” His pamphlet would not have been taken notice of by me in any shape, had it not been to repel this unfounded charge. My former letter to you was accompanied with evidence which disproved his accusation—and had he confined himself, in his reply; to simply accounting for his error, I should not have troubled you at present; but as he endeavours, in his letter in the Observer, of 6th May, to defend, not merely his error in point of fact, but his charge against me, a very few remarks, on my part, again become necessary.

The question at present in agitation between Mr Stone and me is not what is the size and frequency of the frontal sinus. In answer to his assertions on this head, I have referred to works on Phrenology, where he is fully refuted by anticipation. The point in debate is this; I stated that at the lecture in the Assembly Rooms I had exhibited to the audience the whole of Mr Syme's collection of open crania. Mr Stone asserted that the number was *only three*. I have produced Mr Syme's letter stating that all the open crania in his collection, which could be transported with safety, *were sent* to the Assembly Room, and that the number actually present was *eight*. Farther, it cannot be denied, that I exhibited the crania themselves before the audience, and thereby enabled them to judge, on the evidence of their own senses, how far they were cut open, and whether the sinus appeared in them or not. The only question, therefore, regards their number; and this is decided by Mr Syme's letter.

Mr Stone, nevertheless, so far from acknowledging his error, reiterates his charge of imposition, and speaks with conscious complacency of his “own rectitude.” I am neither surprised nor offended by this manifestation of his mental qualities, but leave the public, after perusal of the subjoined letter, to judge which party shows the greatest regard for accuracy and truth.—I am, &c.

GEO. COMBE.

LETTER FROM JAMES SYME, ESQ. TO GEORGE COMBE, ESQ.

MY DEAR SIR,—When you asked me last summer to give you the use of any open skulls that might happen to be in my museum, to illustrate your lecture in the Assembly Room, I little thought that compliance with this apparently very harmless request would involve me in a newspaper controversy. Mr Stone's statement in the Observer, of which you have been kind enough to send me a copy, certainly requires some explanation on my part; and I will therefore give it, however averse to prolonging this most disagreeable discussion, particularly so to me, as it concerns a gentleman who is not only a student of medicine, but one of my own pupils.

The day on which your answer was published, Mr Stone expressed to me, in the presence of several of my assistants, the greatest regret and contrition for his inaccuracy, and promised to apologize for treating my poor museum with so little respect. As he has not fulfilled his promise, I think it incumbent on me to explain how he seemed to have been led into error.

When Mr Stone visited my museum on the occasion referred to in his work, he found me particularly engaged, I believe, in preparing for lecture. He told me that he had returned two preparations which he had borrowed from me some time before, for the purpose of refuting Phrenology; and then asked me, pointing to a glass-case which extends along the whole side of a large room, "if those were all the skulls which Mr Combe had at his lecture?" I answered simply in the affirmative, and had no farther communication with Mr Stone on the subject. It appears that Mr Stone, in asking this question, alluded to three skulls which were lying together, and thus committed the unfortunate mistake.

If Mr Stone had told me the object of his visit, or given me reason to suppose that his question had any other origin than mere idle curiosity, I should certainly have told him when he would find me, at leisure to look over the specimens in question, which were scattered over the whole extent above-mentioned, and ascertain their precise number, &c. I should have paid Mr Stone this attention, not because I approved of his opposition to Phrenology, but because he was a medical student. You know that I am not a believer in the truth of Phrenology, but I should certainly be the last person to ridicule or cry down the exertions of any man who attempts to extend the limits of our knowledge by observation. With best wishes for your success, I remain, &c.

(Signed) JAMES SYME.

75, George Street, 6th May, 1828.

We add to these letters the following extract from the report of Mr Combe's lectures in the Assembly Rooms, Edinburgh, in April, 1827, in answer to Sir William Hamil-

ton, about the skull of George Buchanan, and the Bali murderer :—

“ The supposed skull of George Buchanan had been produced as
 “ an objection ; but, in the first place, Buchanan died at the age of
 “ 78, which was at least 30 years beyond the period of middle life,
 “ to which Phrenologists confine their demonstrative observations,
 “ and no one could tell how much the brain and skull had diminish-
 “ ed in the course of the ordinary decay of nature. In the second
 “ place, the evidence of the skull having belonged to Buchanan
 “ was found by the Phrenologists to be so defective, that they had
 “ for this very reason avoided publishing any account of it. In the
 “ third place, even granting it to be the skull of Buchanan, no
 “ attempt had been made to show that its development was incon-
 “ sistent with the manifestations. It had indeed been contrasted,
 “ and held to be equally good with the skull of the Bali murderer,
 “ which Mr Combe now saw for the first time, and which had been
 “ sent in by Sir William Hamilton after the lecture had begun. A
 “ friend sitting behind him had looked at it since it was handed in,
 “ and written the comments, which he would now read :—‘ The
 “ Bali murderer is *old*, as is seen by the absence of the teeth and
 “ alveolar processes. It is therefore not within the conditions re-
 “ quired by Phrenology. The skull is unequal and twisted. The
 “ propensities generally are very large. Combativeness, Secretive-
 “ ness, Self-esteem, Cautiousness, are all very large, and Destruc-
 “ tiveness and Firmness are large. Conscientiousness is moderate,
 “ as it rises little above the level of Cautiousness. Benevolence
 “ and Intellect are large. Here then, Cunning, Passion, Sus-
 “ picion, and Jealousy, are the strongest among the propensities ;
 “ and with such a combination, in a savage nation, murder from
 “ rage or from suspicion is quite probable. To prove this skull to
 “ be subversive of Phrenology, Sir W. Hamilton must first prove
 “ that it is *not* above middle life, and *not* diseased, (which, from
 “ its appearance, and from the murder apparently not being com-
 “ mitted till old age, is at least doubtful.) He must produce
 “ evidence that the manifestations in mature age were *at variance*
 “ with even his *present* development ; that he was *not* violent in
 “ his rage, *not* crafty, and *not* suspicious, and that he was *not*
 “ deep and calculating in his schemes against others ; that he was
 “ *not* kind and firm to his friends, and that he was *not* a man
 “ whose *mental energy* made him feared. Having established
 “ these points, Sir William may then, but not till then, produce
 “ it as evidence against Phrenology. We do not receive it as
 “ evidence, because we *expressly* specify middle life as the period
 “ for evidence in *demonstration*, and we expressly require health
 “ as a condition.

“ In absence of all evidence, therefore, it was really too much to
 “ produce a specimen which violated all the conditions within which
 “ Phrenologists conducted their observations, and to affirm boldly
 “ that it was at variance with their doctrines ; and Mr Combe felt

"assured, that if the history of this criminal could be got at, it
"would be found in perfect harmony with the principles and ob-
"servations of Phrenology."

Scotman, 2d May, 1827.

This statement had been published nearly a year before Mr Stone's pamphlet appeared; no history of the life and conduct of the Bali murderer had been given in the interval; and although Mr Combe had publicly called on Sir William Hamilton to produce, at least, the letter which accompanied the skull, yet not even this had been done; so that not a shadow of philosophical evidence regarding the character of this individual has ever been, or now is, accessible to the public; nevertheless Mr Stone has returned to this case, and cited it as adverse to Phrenology! This shows to what a miserable shift opponents are reduced for want of facts. It would be a waste of words to reply to such lucubrations.

ARTICLE X.

*The Elements of Physiology, by J. F. Blumenbach, M.D.
F.R.S. Professor of Medicine in the University of Göttingen, translated from the Latin by John Elliotson, M.D.
Cantab., Physician to St Thomas's Hospital, &c. &c.
Fourth Edition. Longman & Co. 1828.*

It does not lie within our province to criticise the text of the work before us; suffice it to say, that Blumenbach enjoys a well-earned reputation as being one of the first physiologists of his day, and that the translation is every way worthy of the original. But Blumenbach is one of those men of unquestionable talent, whose misfortune it has been to acquire a certain eminence in physiological science before Dr Gall's great discovery of the functions of the brain was promulgated, who have felt it humiliating to their self-love to be surpassed by a contemporary, and who have, therefore, resolutely avoided all serious investigation of the evidence on

which the new philosophy is founded, and have acted the melancholy part of depreciating and denying the merits of Dr Gall, which they instinctively perceive would overshadow their own greatness. Accordingly Blumenbach denies Phrenology, and he is referred to by minor opponents as an authority against it. Phrenology, however, is the doctrine of the functions of the brain, and as Blumenbach does not pretend to know more of the uses of that organ than other physiologists who reject Dr Gall's discovery, it follows that in his works vague generalities or positive ignorance hold the place of scientific information relative to the functions of the brain. In so far, therefore, his work is imperfect, and behind the lights of his age.

Dr Elliotson, however, his translator, is a distinguished Phrenologist. He has enriched the present edition with numerous, copious, and interesting notes on Phrenology; supplying the deficiency of the original work, and presenting to the student one of the best manuals of physiology extant. He has added notes on a great variety of other subjects connected with the text, and altogether rendered the work eminently creditable to himself and useful to the medical profession.

ARTICLE XI.

DR SPURZHEIM'S VISIT TO MR WOOD'S (SESSIONAL) SCHOOL, EDINBURGH.

JOHN WOOD, Esq., advocate, Sheriff-depute of Peebles-shire, has acquired an extensive and well-merited reputation for his indefatigable exertions and great success in teaching the children of the poor in this city. English reading, including definitions, arithmetic, and writing, are the leading branches taught in Mr Wood's School; and nothing can be more pleasing than the animated industry and respectable attain-

ments exhibited by the pupils under Mr Wood's benevolent charge.

Dr Spurzheim visited this school during his late stay in Edinburgh, and made remarks on the development of the scholars; but Mr Wood and his assistants being profoundly ignorant of and even hostile to Phrenology, (Mr Wood himself indeed scarcely concealing his decided enmity and contempt towards it, his assistants not doing so at all,) and the exercises of the children giving small scope to their general intellectual faculties, the result was not satisfactory to either party. Dr Spurzheim, for instance, pointed to a boy whose large anterior lobe, and nervous temperament, promised general intellectual superiority, and mentioned the particular talents in which he ought to excel; but Mr Wood knew only how he could read, how he could add, subtract, divide, and multiply, and how far he could repeat the definitions and explanations of words which he had been taught, and therefore could not tell how far Dr S.'s inferences were correct. It appeared also, that in teaching arithmetic, mechanical rules were made to supply to an amazing extent the exercise of thought, and that problems of apparently portentous difficulty were solved as fast as the figures which expressed them could be written down, not by mental power, such as was exhibited by George Bidder, but by dealing with single figures in succession, according to fixed rules: the sum of difficulty surmounted scarcely exceeding that of subtracting one unit from another. This mode of making arithmetic easy is highly commendable in itself; but we notice it, to observe that those persons who do not trace the mechanism are apt to imagine far higher talents to be involved in it than are actually required.

On a subsequent day, Dr Spurzheim again visited the school, with the intention of requesting Mr Wood to point out the individual scholars most distinguished for any particular talent, and those least gifted with it, and then directing his attention to their heads. Dr Spurzheim remarked

to a friend, that he found it impossible to make Mr Wood comprehend what he meant by the phrenological faculties, but that he hoped he would be able to render obvious to his eyes differences of development of brain. We are not informed whether Mr Wood was aware of what Dr Spurzheim intended to do or not; but Mr Wood and his assistants put in practice the following device:—A boy of very limited powers had been attending for some time, whom they had in vain attempted to teach. With much tutoring and difficulty, this poor creature was drilled into so much steadiness as to stand without betraying his condition, and, having thus been passed off as one of the pupils, Dr Spurzheim was asked his opinion of his talents. Dr Spurzheim examined him cursorily, and with great kindness (wishing to avoid hurting the boy's feelings) turned round to Mr Wood, and, preventing his words, by placing his hand before his mouth, from reaching the boy's ears, said, that he was of a very inferior temperament, and, pointing to a boy with a superior head, said, he would be much beneath that individual; but the Doctor did not say that he was an absolute idiot.

This appears to have been precisely what Mr Wood desired; exulting in the success of the *ruse*, he proclaimed over the town, that Dr Spurzheim had mistaken an idiot for an ordinary boy belonging to his highest class, and had thus given the *coup de grace* to Phrenology.

When Mr Combe heard this story circulated, he asked Mr Wood if it was correct; who at once admitted that it was substantially true, viz. that he had passed off a boy known in the school as "Daft Geordie" on Dr Spurzheim as one of his ordinary scholars, and that Dr S. had not detected the deception. Mr C. expressed his surprise, and mentioned to Mr Wood that he must have resorted to such a proceeding in profound ignorance of the first principles of Phrenology; because, in all the works on the science, it is stated, that "the proper subjects for observation are *healthy* individuals below the middle period of life," and that "the brain, like other parts of the body, may be affected with certain diseases

"which do not diminish or increase its magnitude, and yet impair its functions; and in such cases, great size may be present, and very imperfect manifestations appear;"* that Dr Spurzheim was entitled to assume that no trick would be attempted on him, but that the boys presented to him were in health, and really pupils in the classes in which they appeared; that no Phrenologist pretended to detect chronic idiocy by merely examining the external appearance of a skull; and that, therefore, he, Mr Wood, had really expended his ingenuity to little purpose, for the result was a demonstration of his own ignorance of what Phrenologists professed to do, without the least derogation from Dr Spurzheim's reputation as an observer.

Mr Wood acknowledged himself not at all skilled in phrenological science, and said he thought Dr Spurzheim professed to know people's talents by their heads, and, of course, to discover an idiot when presented to him.

Notwithstanding of this explanation, however, Mr Wood, as we are informed, continues widely to diffuse his story, and we hold ourselves not only authorised, but called upon in defence of Dr Spurzheim, and of the science itself, to state the facts as they occurred. Very few remarks are necessary. We observe,

1st, Dr Spurzheim, on entering the school, was authorised, by Mr Wood's rank in life and character as a gentleman, to rely on the most perfect fair dealing being observed towards him.

2d, The principles of Phrenology exclude idiots, as subjects by whom the truth or falsehood of the science can be legitimately established. There is only one exception to this rule: Where the brain is unusually small in size, idiocy is the invariable concomitant; but the brain may be of full size and diseased, and then idiocy will not be distinguishable by external signs. This was the case of the boy in question.

* *System of Phrenology*, pp. 29 and 41.

3d, Mr Wood's conduct on this occasion shows the *animus* with which he was affected towards Phrenology, also the latitude of practice which he conceives legitimate in order to refute it; and by these our readers will judge of the weight due to Mr Wood, as an authority against the science, and of the philosophical character as well as candid spirit of any other representations, which he or his assistants may make on the subject. And,

4th, The exposure we have been compelled to make of this notable attempt to refute Phrenology, by passing off an idiot as an ordinary pupil, ought to afford a practical lesson to those who have chosen to declare themselves hostile to the science, to make themselves masters of its first principles before they attempt to put it down, either by argument or by experiment.

ARTICLE XII.

CHRONICLES OF THE CANONGATE, SECOND SERIES, BY
THE AUTHOR OF WAVERLEY, &c.

THIS work is interesting to the Phrenologist, not only on account of the admirable delineation of individual character which it contains, but of the light which it throws on the condition of society in common life in feudal times. Advancing in civilization is just rising in the scale of faculties. The savage acts habitually from motives furnished by the animal propensities, the moral sentiments and reflection being nearly dormant. The barbarian, to which class we assign our feudal ancestors of the fourteenth and fifteenth centuries, is still a savage in the general tone of his character, but the higher sentiments and intellect have begun to mingle their influence in his actions, although their sway is unsteady and their direction often absurd. Man, when fully civilized, will acknowledge the moral sentiments and reflecting intellect as his

predominating motives ; and civilization is at all times perfect or imperfect in proportion to his approach to this standard.

The author remarks, " that men rarely advance in civilization or refinement beyond the ideas of their own age ;" and hence each generation in succession appears to itself to have attained the limits of human perfection ; it looks back, and sees that it has advanced, but it has not profundity nor comprehensiveness sufficient to look forward and perceive how far its successors are destined to surpass it in virtue and attainments. If the present generation could discover and embrace the extended views of morality and science which their successors a century hence will practically entertain, they could not remain as they now are ; they would rapidly advance to the highest point which they could clearly perceive as attainable. But it is impossible for the great mass of mankind to realize ideas or maxims much in advance of those of their own age ; might they not, however, be induced at least to offer less resistance to improvement than they generally do ? This salutary end might, perhaps, be attained by making them acquainted with the philosophy of human nature and its highest capabilities, by leading their minds over the page of history, exhibiting past generations acting from inferior motives and narrow views, and enforcing the conclusion, that as we who now live have not attained the limits of improvement, we ought to admit, as a practical principle, that succeeding generations will surpass us ; and, instead of being offended with new doctrines, new principles, and new practices, we ought to regard them with liberal toleration, and leave them free scope for operation, under the firm conviction that experience and discussion will extinguish all that are not conducive to human enjoyment.

" We talk of a credulous vulgar," says Mrs Baliol, in the introductory chapter, " without always recollecting that there is a vulgar incredulity, which, in historical matters, as well as in those of religion, finds it easier to doubt than to examine, and endeavours to assume the credit of an *esprit fort*, by denying whatever happens to be a little beyond the very limited comprehension of the sceptic." We add " science" to Mrs Baliol's catalogue of subjects, in which vulgar incredulity finds it easier to doubt

than to examine; and if the histories of Galileo, Harvey, and Newton, are not sufficient to establish our position, we appeal to that of Dr Gall and Phrenology.

Our readers cannot have forgotten the intense ridicule with which, a few years ago, Phrenologists were assailed for exhibiting organs of Combaticiveness and Destructiveness co-existing with organs of Benevolence, Veneration, and Conscientiousness, in the same individuals, and for asserting that the same man might be impetuous, combative, and wrathful, yet kind-hearted, courteous, and just. The character of Henry of the Wynd contains an admirable representation of these elements in combination:—

"It is not my part, father," returned the Maid of Perth, "to decide who had the right or wrong in the present brawl; nor did I see what happened distinctly enough to say which was assailant or which defender; but surely our friend, Master Henry, will not deny that he lives in a perfect atmosphere of strife, blood, and quarrels. He hears of no swordman but he envies his reputation, and must needs put his valour to the proof. He sees no brawl but he must strike into the midst of it. Has he friends, he fights with them for love and honour; has he enemies, he fights with them for hatred and revenge. And those men who are neither his friends nor his foes, he fights with them because they are on this or that side of a river. His days are days of battle, and doubtless he acts them over again in his dreams."

"Daughter," said Simon, "your tongue wags too freely. Quarrels and fights are men's business, not women's, and it is not maidenly to think or speak of them."

"But if they are so rudely enacted in our presence," said Catherine, "it is a little hard to expect us to think or speak of any thing else. I will grant you, my father, that this valiant burgher of Perth is one of the best-hearted men that draws breath within its walls—that he would walk a hundred yards out of the way rather than step upon a worm—that he would be as loath, in wantonness, to kill a spider as if he were a kinsman to King Robert of happy memory—that in his last quarrel, before his departure, he fought four butchers to prevent their killing a poor mastiff that had misbehaved in the bull-ring, and narrowly escaped the fate of the cur that he was protecting. I will grant you also, that the poor never pass the house of the wealthy armourer but they are relieved with food and alms. But what avails all this when his sword makes as many starving orphans and mourning widows as his purse relieves?"

"Nay, but, Catherine, hear me but a word before going on with a string of reproaches against my friend, that sound something like sense, while they are, in truth, inconsistent with all we hear

"and see around us. What," continued the glover, "do our king and our court, our knights and ladies, our abbots, monks, and priests themselves, so earnestly crowd to see? Is it not to behold a display of chivalry, to witness the gallant actions of brave knights in the tilt and tourney ground, to look upon deeds of honour and glory achieved by arms and bloodshed? What is it those proud knights do, that differs from what our good Henry Gow works out in his sphere? Who ever heard of his abusing his skill and strength to do evil and forward oppression; and who knows not how often it has been employed in the good cause of the burgh? and shouldst not thou, of all women, deem thyself honoured and glorious that so true a heart and so strong an arm has termed himself thy bachelor? In what do the proudest dames take their loftiest pride save in the chivalry of their knights; and has the boldest in Scotland done more gallant deeds than my brave son Henry, though but of low degree? Is he not known to Highland and Lowland as the best armourer that ever made a sword, and the truest soldier that ever drew one?"

"My dearest father," answered Catherine, "your words contradict themselves, if you will permit your child to say so. Let us thank God and the good saints, that we are in a peaceful rank of life, below the notice of those whose high birth, and yet higher pride, lead them to glory in their bloody works of cruelty, which the proud and lordly term deeds of chivalry. Your wisdom will allow that it would be absurd in us to prank ourselves in their dainty plumes and splendid garments; why then should we imitate their full-blown vices? Why should we assume their hard-hearted pride and relentless cruelty, to which murder is not only a sport but a subject of vainglorious triumph? Let those whose rank claims as its right such bloody homage take pride and pleasure in it; we, who have no share in the sacrifice, may the better pity the sufferings of the victim. Let us thank our lowliness, since it secures us from temptation. But forgive me, father, if I have stepped over the limits of my duty in contradicting the views which you entertain, with so many others, on these subjects."—Vol. i. p. 64.

Catherine Glover and the old King of Scotland present striking contrasts to the warlike ferocity of the other actors in the drama of the novel. Both are represented as eminently animated by benevolence, veneration, and justice, and possessed of very moderate animal propensities; they sigh after peace, happiness, and truth, as the only qualities fitted to afford them satisfaction, and feel deep disgust at the wild ferocity which animates every class of society, from the meanest citizen to the highest noble. They speak forth sentiments, which we of this generation recognise to be true, prac-

tical, beautiful, and Christian, but which seemed to the barbarians to whom they were addressed as weak enthusiastic dreams.

The preparation for the judicial combat, by which the murder of Oliver Proudfoote was to be avenged, is highly characteristic of the manners of the age:—

“Speak for the poor woman, Sir Patrick Charteris,” said the king, “and tell us the cause of her seeking our presence.”

“So please you, my liege,” answered Sir Patrick, rising up, “this woman and these unhappy orphans make plaint to your highness upon Sir John Romany of Romany, Knight, that by him or by some of his household, her unquhile husband, Oliver Proudfoote, freeman and burgess of Perth, was slain upon the streets of the city on the eve of Shrove Tuesday, or morning of Ash Wednesday.”

“Woman!” replied the king with much kindness, “thou art gentle by thy sex, and shouldest be pitiful even by thy affliction; for our own calamity ought to make us—nay, I think it doth make us—merciful to others. Thy husband hath only trodden the path appointed to us all.”

“In his case,” said the widow, “my liege must remember it has been a brief and a bloody one.”

“I agree he hath had foul measure. But, prince, I have been unable to protect him, as I confess was my royal duty. I am willing, in atonement, to support thee and these orphans, as well, or better, than you lived in the days of your husband; only do thou pass from this charge, and be not the occasion of spilling more life. Remember, I put before you the choice betwixt practising mercy and pursuing vengeance, and that betwixt plenty and poverty.”

“It is true, my liege, we are poor,” answered the widow with unshaken firmness; “but I and my children will feed with the beasts of the field ere we live on the price of my husband’s blood. I demand the combat by my champion, as you are belted knight and crowned king.”

“I knew it would be so!” said the king aside to Albany. “In Scotland, the first words stammered by an infant, and the last uttered by a dying graybeard, are, ‘Combat—blood—revenge.’—It skills not arguing further. Admit the defendants.”—Vol. ii. p. 269.

The judicial combat accordingly took place amidst thousands of spectators of all ranks; and, in this instance, victory declared for justice; the murderer was defeated, and Harry of the Wynd, who fought as champion of the widow, proved victorious. The descriptions of Sir Walter Scott are invaluable.

able for their truth and accuracy, and no scene could more forcibly represent than this the inconceivable extent to which our ancestors lived in the atmosphere of Combativeness, Destructiveness, and Self-esteem. Revenge was then what the love of gain is now, the universal and engrossing passion, and religion was a system of gross superstition. The idea that an ordeal of battle was an appeal to God was natural to rude minds. It being granted that God directs every event, and that he is omniscient and just, it appears to follow as an inevitable consequence, that in battle he will protect the innocent and send discomfiture on the guilty; nevertheless we know by experience, that this is not always the result. It is only by admitting that the Creator governs the world by general laws, that we escape from the dilemma. He has bestowed on man intellect and moral sentiments, and designed that he should take them as his guides, not only in pursuing happiness, but in seeking redress of wrongs; and these faculties never at any period acknowledge battles and bloodshed as means of attaining justice and truth. When our ancestors, therefore, appealed to Heaven by judicial combat, they laboured under a complete misconception of the principles on which the Creator governs the world; and this moral and intellectual error coinciding in them with great ferocity of mind, carried the most heart-rending evils in its train; in the words of the king, "In Scotland, the first words stammered by an infant, and the last uttered by a dying gray-beard, were, 'Combat—blood—revenge.'"

The character of Henbane Dwining can be fully comprehended only by a Phrenologist: he is a compound of Destructiveness, Acquisitiveness, Secretiveness, Cautiousness, Firmness, and Intellect, with the least possible portion of Benevolence, Veneration, and Conscientiousness. The characters of Henry and Dwining are excellent contrasts for those who wish to know the effects of Combativeness and Destructiveness combined, as in Henry, with great Benevolence; and of pure Destructiveness, with little Combativeness combined, as

in Dwining, with much deficiency in Benevolence. Henry is hot-tempered, pugnacious, and bold, but generous and kind; and Dwining is cold, cruel, cautious; he is one "to whose evil nature *his patron's distress was delicious nourishment.*" He laughs with exquisite pleasure when his patient and victim is writhing in agony, and delights in inflicting pain. Until Phrenology with its primitive faculty of Destructiveness appeared, no system of mental philosophy in existence could explain the nature of such a being.

The author has been less successful with Connachar. He has represented him as a coward; or, in phrenological language, with Cautiousness far surpassing Combativeness and Firmness. But his conduct and appearance are not uniformly consistent with these qualities. It is well established, that a man's outward bearing, or the stamp of character impressed by nature on his whole figure, his gait, attitudes, look, and tones of voice, take their rise from the predominating organs in his brain, or faculties of his mind. Now, Connachar is described as rash, fiery, and vindictive. This would harmonize with Combativeness, Destructiveness, and Self-esteem large, and *Cautiousness small*; but then this combination will not suit a coward. Large Destructiveness and large Cautiousness may co-exist in a coward, and he to the weak may be cruel, overbearing, and tyrannical; but Connachar attacked Henry with a knife to murder him in the glover's shop in Perth, although he knew Henry to be far more than his equal, and detection and punishment certain. This was the act of large Combativeness, Destructiveness, and Self-esteem, with deficient Cautiousness, and was impossible to a coward. Again, Connachar is represented at the funeral-feast as bold, manly, and noble in his aspect and bearing, and as looking like a brave man, even at the combat on the North Inch of Perth. Such looks, attitudes, and gestures, however, are not assumable by one in whom Combativeness and Firmness are deficient, and Cautiousness overwhelming in magnitude. The creeping timid look, step, and move-

ment, are ingrained by nature in such a person, and he can no more lay them aside, than the leopard can change its spots.

Connachar is utterly disgraced by his cowardice ; and, at last, in desperation, leaps over a precipice, and is dashed to pieces. This act has been thought inconsistent with his character of poltron ; but we think it more reconcilable to it than some of the preceding attributes. Suppose Combative-ness and Firmness to have been very deficient, but Destructiveness, Self-esteem, Love of Approbation, and Cautiousness to have been very large, the individual might, from the weakness of the first two faculties, have been morally incapable of fighting, or of coolly facing dangers ; while, at the same time, he might have been dreadfully alive to disgrace, and having become frantic under the excessive fear of this calamity, he might consistently have been impelled, by the strength of these feelings and Destructiveness, to cast himself into the gulf. Suicide is committed more frequently from fear than is generally supposed ; the fear of want, or fear of disgrace, lead to self-destruction ; and if fear of calamity to be encountered by living be excessive, less active courage is in proportion requisite to meet death.

After surveying society, as represented in these volumes, we turn with a pleasing consciousness of improvement to its aspect in our own day. The lawless wildness of the lower propensities is tamed ; men do not now thirst for blood ; they are pleased with other honours than murders and robberies committed on their countrymen. But even the present generation is not entirely beyond the region of the propensities ; Acquisitiveness has taken the lead in place of Combative-ness and Destructiveness, while Self-esteem and Love of Approbation, nearly as active as before, seek gratification in wealth, pomp, and outward circumstance. We are authorised to hope, that the summit of ascent is not yet reached, and that higher faculties will one day take the lead. Sir Walter Scott would do an invaluable service to his country, if he

would draw a fair portrait of its present inhabitants, nothing extenuating and setting down naught in malice, but representing fairly the predominating motives which actuate them in their habitual conduct; and we should be most happy to do our part, by analyzing the motives, and referring them to their places in the scale of faculties.

The work before us shows its author's powers to be neither exhausted nor impaired; and much as we hear that he dislikes Phrenology, we doubt if any but Phrenologists possess knowledge of human nature sufficient to appreciate fully the accuracy of observation which he displays.

ARTICLE XIII.

PHRENOLOGICAL NOTICE OF MR WARDROPE'S CASE OF RESTORATION TO SIGHT IN A LADY OF 46 YEARS OF AGE.

In a paper published in the 4th volume of the Phrenological Journal on the functions of the sense of sight, considered in its relation to ideas of Form, Colour, Magnitude, and Distance, I gave an abstract of the phrenological philosophy of vision, for the purpose of afterwards applying it to the analysis of a case of restoration to sight, in a lady who had been blind from infancy up to her 46th year, and who, from her general intelligence, had been able to give a better account of her daily progress, than almost any other person whose history has been recorded. But as that paper was not read to the Society, and may not, therefore, be known to many of the members, I trust I shall be excused for a little repetition.

The case to which I allude occurred to Mr Wardrope of London, and was published by him in the Philosophical Transactions of 1826, and it took my attention, both from its intrinsic importance, and from its having given rise to a good deal of philosophical discussion on the often-agitated ques-

one would never have learnt to estimate magnitude and proportion, the other would never have learnt to distinguish perspective, and, last of all, the blind man has given indications which demonstrate that, if it were possible to restore him to sight, he would to a certainty far surpass both, notwithstanding all their experience and all the assistance derived from the sense of touch. But in a society of Phrenologists it is unnecessary to dwell on what is known to all, and it will be enough for the proper application of the principle to repeat, that all perceptions and inferences from the qualities of external nature depend on and are proportionate to the cerebral organs already mentioned, and that the eye is the mere passive telescope through which the image reaches the mind, there to give rise to our various ideas of shape, colour, and magnitude; and that accordingly, when we retrace past scenes, it is not the eye that recalls them, but the cerebral organs through which the mind acts; and when the maniac or the delirious see visions which disturb and terrify them, it is not the eye but the brain that engenders such fancies, and consequently, when the eyesight is lost, memory of our former perceptions of the external world remains unimpaired, just as much as our former recollections of scenery remain unimpaired by the darkness of night, or by putting a shade over the eyes.

When, therefore, a blind person is restored to sight, and we investigate the phenomena attending such a pleasing acquisition of mental power, we must not merely ask, *what* does he see, and *how* does he see, but we must determine what are his original and specific capacities for seeing—what are the state of his eyeballs, what of his muscular power over them, what the condition of the optic nerve, and what the development of his organs of Form, Colour, Size, Locality, and Number? and having considered all these points, we may then proceed cautiously to general inferences. But singular it is, that, in all the instances hitherto recorded, these conditions have been always partially and almost always wholly overlooked; and hence we need not wonder that the

the rays of light is impeded in exact proportion, and we see objects obscurely, as if enveloped in mist, or we see them not at all. In this case the mind and judgment are undisturbed, and we ascribe the obscurity to the eye, and not to the thing looked at, just as in looking through a telescope, the glasses of which are dirty, we ascribe the dark spots and muddiness to the state of the instrument, and not to external nature; and when the pupil, for instance, is closed, and the rays of light can no longer reach the retina, sight is destroyed, just as in the telescope, where the screen covers either end and intercepts the rays of light. In both cases, equally, we ascribe the defect neither to the mind itself, nor to any change in the external world, but simply to the state of the instrument which the mind makes use of.

The state of the muscles which move the eyeballs next affects the accuracy of vision in a very conspicuous degree; for in regard to effect, it is obviously the same thing, whether it is the eye itself or the object looked at that is in motion. If we attempt to look at a picture that is vibrating to and fro, we shall find it exceedingly difficult to give an accurate account of it; and again, if, from disuse or disease, we lose the command of the eye's motions, and allow it to roll, the result is precisely the same. It is the same, in fact, as if we attempted to examine a landscape through a telescope held in the hands of a person trembling through fear; the obvious effect is to make the luminous image instantly shift its place on the retina, which amounts to the same thing as to move a body which we are examining by touch from between the fingers, and to promenade it all over the hand, or all over the body, where the nerves of touch exist; and by so doing, it is not difficult to perceive, that, as to any information it could afford us, we might as well not touch it at all.

So important indeed is this condition, that Mr Bell mentions a case where this want of power in directing the movements of the eyeball was so great as to induce a belief, during several weeks, that actual blindness existed,

when, on minute examination, the eyeball appeared quite sound, and the only defect lay in a want of power over the movements of the eye, so that the eyeball could not be turned down. Hence, in persons restored to sight, this constitutes an obvious impediment to exact vision. If the eye has been previously insensible to the light, this obstacle is very marked; but if sensibility to light was possessed, although no other visible quality could be distinguished, the obstacle would be greatly less, because, when light is perceived, the eye naturally turns to it, and the motion of the eyeball is thus to a certain degree kept up. In the case before us the sensibility to light existed but in a very slight degree; and accordingly we are told by Mr Wardrope, that, even at the 42d day after the operation, his patient was not yet able, without considerable difficulty and numerous fruitless trials, to direct her eye to an object; so that, when she attempted to look at any thing, she turned her head in various directions, until her eye caught the object of which it was in search.

But if we generalize from this individual fact, we shall risk many mistakes, because in other cases, where the light was not so completely excluded as in this patient's eye, the control over the movements of the eyeball was acquired in a very few days; and vision becomes sooner distinct just in proportion as the telescope is held steady.

When the muscles of both eyes act in harmony, so that their axis shall converge on the same spot, we see objects single; when they do not, and the eyes diverge, we immediately see double. This may be made apparent by looking at a knife held half-way between the eyes and a candle. The axis of both eyes being directed so as to converge upon the knife, the candle will be seen double, and in like manner, if we direct the eyes so as to converge upon the candle, the knife will be seen double. This is another proof of the importance of the voluntary motion.

The next point in vision is the state of the optic nerve. If

it is sound, it conveys a clear and defined image to the brain and mind; but if it is diseased or wounded, the image, although formed upon the retina, is not transmitted, and no consciousness of its presence exists. Hence vision will be more or less strong and acute (the state of the eyeball being the same) the more or less sound and vigorous the optic nerve is.

Lastly, To *perceive* the image, and to recognise its distinctive qualities of Colour, Form, Magnitude, Number of parts, the co-operation of the corresponding cerebral organs demonstrated by Phrenology, is indispensably necessary; and in proportion to the relative strength of each of these, as given us by nature, will be the facility and accuracy with which we shall be able to perceive and judge of the respective qualities; so that, of several persons whose general power of vision is equal, one shall excel in perceiving Forms, another Colours, and a third, Magnitude, and so on. For the knowledge of this important fact we are indebted to Phrenology alone. But, simple as it is, its importance is so great, that I must be allowed to add some remarks in illustration of it. Experience teaches us that persons who have good eyesight, have not necessarily an equally good perception or judgment of Colours and Forms; and that there are even some very sensible men who have looked on nature all their lives with rather a quick sight, and who, nevertheless, remain incapable of distinguishing shades of colours, of estimating distance, or of judging of forms; and we know that this incapacity arises from a naturally deficient endowment of the organs of Colour, Locality, Size, and Form, respectively. When, therefore, we come to investigate the phenomena attendant on the sudden restoration to sight of a blind person, we very naturally inquire whether these inherent differences of mental capacity have been attended to by the observers, and allowance made for them in deducing inferences, and in answer, we learn with surprise that they have never been thought of, and we find philosophers gravely comparing phe-

nomens and drawing inferences, on the assumption that all men are by nature alike, and that Mr Mylne, for example, is as bountifully endowed with the faculty of colouring as Rubens himself, and that Mr F., who sees all perspective as a plain surface, is gifted by nature with as high discrimination as the best landscape-painter that ever existed; and yet let us compare for a moment these extreme cases to show the fallacy of such an assumption.

Mr Mylne has now looked upon the world and exercised his sense of sight for upwards of forty years, but at no period of his life has he been able to distinguish a brown from a green or green from an orange, although in other respects his sight is good, and he is able to perceive very accurately all the other qualities of shape, magnitude, weight, and distance. Now let us suppose that Mr Mylne had been born blind, and had been restored to sight at the age of forty, and had then acquired in a very short time the power of perceiving and judging of the form and distance of external objects but had remained as deficient as he is now in the power of perceiving and distinguishing colours, is it not absolutely certain, that the old philosopher and the surgeon would at once have inferred that the perception of colour was the most difficult and the most complicated, if not the least inborn, of all the mental powers? while the Phrenologist, on the other hand, would have first examined the relative development of the knowing organs, and inferred that the patient would experience most difficulty in estimating that particular quality of bodies of which the organ was the least developed,—and, on the other hand, let us suppose that Rubens, whose discrimination in colour was so acute, and whose colouring is confessedly superior to his form or outline, had been born blind, and been restored to sight at the same age, and had rapidly acquired the power of perceiving colours, &c. but had remained comparatively defective in forms, is it not equally certain that the philosopher who did not allow for innate differences of mental power would infer from this case, that the perception of

colours was the most easily acquired, while that of figure was the most difficult? and that here again the Phrenologist, by attending to cerebral development, would alone arrive at the truth?

The celebrated Blacklock, in his poetical productions, recurs again and again to the delights of colouring, and yet his eyes never saw the light of day. What was it that made him, to use the words of his biographer, "allude to the various beauties of the visible world, and to the charms and delicacies of colour, 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 eyes," and yet made Mr Mylne not only careless about the beauties, but even incapable of distinguishing the shades of colour with his eyes open and the light of day beaming around him? The Phrenologist will at once say that Dr Blacklock must have had a large endowment of the organ of Colour, which Mr Mylne is known to have very little of, and to this he would ascribe Dr B.'s fondness for dwelling on the beauties of tints which he could see only in his fancy,—and yet these enormous differences are overlooked by the merely speculative philosophers.

Instances of another kind may be quoted. The Society possesses the mask of a gentleman in whom Size and Locality are so deficient, that in closing his eyes upon a landscape, or in looking at a picture, he sees all the objects as it were on a plain surface. As the very opposite extreme, I may cite the case of Hollock, the blind traveller, who is now making discoveries in Africa, and who retains in his mind the perspective and relative position of scenes which he never saw, but which are minutely described to him on the spot, with a fidelity equal to any living traveller. This power, I have been informed (I believe) by Dr Spurzheim, corresponds with an enormous development of the cerebral organs in which the gentleman alluded to is so singularly deficient. Had these three persons then been born blind and restored to sight, to what opposite inferences would the case of each have given rise, unless viewed in relation to the natural gifts? The

one would never have learnt to estimate magnitude and proportion, the other would never have learnt to distinguish perspective, and, last of all, the blind man has given indications which demonstrate that, if it were possible to restore him to sight, he would to a certainty far surpass both, notwithstanding all their experience and all the assistance derived from the sense of touch. But in a society of Phrenologists it is unnecessary to dwell on what is known to all, and it will be enough for the proper application of the principle to repeat, that all perceptions and inferences from the qualities of external nature depend on and are proportionate to the cerebral organs already mentioned, and that the eye is the mere passive telescope through which the image reaches the mind, there to give rise to our various ideas of shape, colour, and magnitude; and that accordingly, when we retrace past scenes, it is not the eye that recalls them, but the cerebral organs through which the mind acts; and when the maniac or the delirious see visions which disturb and terrify them, it is not the eye but the brain that engenders such fancies, and consequently, when the eyesight is lost, memory of our former perceptions of the external world remains unimpaired, just as much as our former recollections of scenery remain unimpaired by the darkness of night, or by putting a shade over the eyes. When, therefore, a blind person is restored to sight, and we investigate the phenomena attending such a pleasing acquisition of mental power, we must not merely ask, *what* does he see, and *how* does he see, but we must determine what are his original and specific capacities for seeing—what are the state of his eyeballs, what of his muscular power over them, what the condition of the optic nerve, and what the development of his organs of Form, Colour, Size, Locality, and Number? and having considered all these points, we may then proceed cautiously to general inferences. But singular it is, that, in all the instances hitherto recorded, these conditions have been always partially and almost always wholly overlooked; and hence we need not wonder that the

most incongruous facts have been stated, and the most contradictory inferences have been deduced from them by different authors, when, in reality, the perplexity has arisen from comparing things as equal which were wholly different from each other.

These points being disposed of, let us now apply the principle to the examination of Mr Wardrop's case, in which the blindness arose from the closing up of the pupil or opening through which the rays of light enter the eye. The operation which he performed was to cut out an artificial hole, large enough to supply its place ; and this he accomplished at three different times,—the last having been at the distance of three weeks from the first.

By the first operation a little light was admitted, by the second, a little more, which then became oppressive by its brilliancy, and by the third, an opening was effected large enough to admit a sufficient body of luminous rays, and from that moment a distinct image was formed upon the retina, and the cerebral organs were excited to recognise its visible qualities, and on the patient's way home from Mr Wardrop's house, on seeing a hackney-coach pass, she asked, " What is that large thing that has passed us ?" and on the same evening she distinguished the dark and bright sides of her brother's watch, the figures and hands on the dial-plate, and the chain and seals ; but seems never to have imagined that any or all of these objects were in direct contact with her eye, as some philosophers allege they ought at first to be felt to be.

The patient possessed a good development of Colour, and accordingly we find her asking on the third day, whether the colour of a door on the opposite side of the street was red. It was of an oak colour ; but this showed that she received different impressions from different colours, although she could not name them correctly. She soon took great delight in colours, and preferred pink and yellow.

Miss D.'s organ of Form, although considerable, was not, as I understand, equal in development to that of Colour ; and

on examining her different powers on the eighteenth day, when she could not only distinguish colours, but also tell their names, Mr Wardrop remarks, "It may be here observed, that she had yet acquired by the use of her sight but very little knowledge of any forms, and was unable to apply the information gained by this new sense, and to compare it with what she had been accustomed to acquire by the sense of touch. When, therefore, the experiment was made of giving her a pencil-case and a large key to examine with her hands, she discriminated and knew each distinctly; but when they were placed on the table, side by side, though she distinguished each with her eye, yet she could not tell which was the pencil-case and which was the key."

She possessed, however, a sufficient perception of Forms to distinguish between a round and a square, and between objects very dissimilar.

Phrenology seems to afford the means of reconciling some apparently very contradictory cases. In Cheselden's celebrated case, it is distinctly affirmed that his patient, a boy of 13, *"knew not the shape of any thing, nor any one thing from another, however different in shape or magnitude ;"* while in Mr Ware's equally interesting case, Mr Ware states, that so early as the third day after the operation, when "I held a letter before the boy, at the distance of about 12 inches, he told me, after a short hesitation, that it was a piece of paper, that it *was square*, which he knew by its *corners*, and that it was longer in one direction than it was in the other." Of an oval snuff-box, he said, that "it was round, because it had not corners." Mr Ware adds, "the observation which appeared to me most remarkable was that which related to a white stone mug, which he first called a stone basin, but soon after, recollecting himself, said it was a mug, because it had a handle." Here then, in circumstances not apparently dissimilar, are the most opposite results; and yet, if we take the cerebral development into account, the incongruity may, I think, be explained, without accusing either of misrepresenting facts. Cheselden's patient was, if any thing, more completely blind before the operation than Mr Ware's, and having remained blind till six years later in life, the dormant organs were of course in a less favourable state for exercise; and the power of fixing the eye, which we have seen to be a very essential condition, was so little possessed, that, according to Cheselden, he knew not how to

do it, and only acquired the power of directing his eyes to any particular object, by slow degrees. If, in addition to these differences, we allow to Mr Ware's patient a higher development of Form and Size than that possessed by Cheselden's, we shall easily understand why the results were so different. And that this latter condition is truly the most important may be inferred, not only from the facts known in Phrenology, but also from a case mentioned by Sir Everard Home, as having occurred to him in 1807, of a boy of seven years of age, who *could distinguish "distance immediately ;* " but had long a very imperfect knowledge of Forms. A pair of " scissors was shown to him, and he said it was a knife. On being " told he was wrong, he could not make them out, and seemed de- " lighted with the discovery." This case is singular; as distance, being a compound idea, is in general among the last which is accurately estimated, and it shows the force of natural endowment too strongly to allow it to be longer overlooked.

Mr Wardrop's patient had also a distinct perception of motion, as well as of relative position. When a glass of water was placed on the table before her, on approaching her hand near it, it was moved quickly to a greater distance, upon which she immediately said, " You move it ; you take it away."

She was long in acquiring accurate notions of distance as well as of forms ; but this is in some degree to be ascribed to the unsteadiness consequent upon the very long disuse of the eye. For it is mentioned, that, even seven weeks after the operation, when desirous of examining an object, she had considerable difficulty in directing her eye to it, and finding out its position, moving her hand as well as her eye in various directions, as a person when blindfolded, or in the dark, gropes with his hands for what he wishes to touch ; and the effect of this, as an obstacle to correct vision, is well ascertained, and may easily be conceived from the difficulty we experience in judging of distances or of forms in looking through a telescope shaken by the wind.

Mr Wardrop gives us no data of the action of the faculty of Number ; but Mr Ware particularizes one patient who at first could not count his fingers by sight. But enough has been said in illustration of the phrenological principle contended for, and I may therefore conclude, with a single remark on the supposed corrective functions, and superiority of the sense of touch over that of sight.

It has long been a favourite doctrine with many philosophers, that it is by touch that we come to distinguish Forms, Distances, and Magnitudes, and even to see objects single and not double ; and such cases as those of Cheselden and Mr Wardrop have been referred to as demonstrating the necessity of the corrections of touch to accurate vision ; but after what has been stated of the conditions requisite for distinct vision, the fallacy of such a sweeping inference will be abundantly apparent, and the true amount will be simply, that as each sense takes cognizance of a distinct quality, the knowledge derived from two of the senses will be more complete than that derived from one, and that derived from three than that from two, and so on ; but that in no case does the impression made on one sense alter in any degree the impression made on any other sense, or the perception arising from that impression. Touch, for instance, may inform the judgment that a rod immersed in water is straight and not bent, but touch will never make it appear straight to the eye, or give rise to any perception but that of a crooked object. For, although the mind knows that sight is wrong, the latter, nevertheless, continues to the end of time to *see it bent* ; and, in virtue of the constitution given by nature, the eye cannot, by any possibility, or by any experience, see it otherwise than in obedience to the laws of light. This goes to the root of one sense being corrected by another. *The mind which judges and directs actions is corrected, and knows that the sense is in error, but the sense itself never varies in its tale.* Touch *may* tell us that our bodies are not behind the mirror, but sight will continue, nevertheless, to see the same form there as be-

fore. It is our judgment and not the sense that is corrected, as the impression on the latter remains identically the same.

A curious proof of this is mentioned by Captain Parry:—

‘We had frequent occasion,’ says that navigator, “in our walks on shore, to remark the deception which takes place in estimating the distance and magnitude of objects when viewed over an unvaried surface of snow. It was not uncommon for us to direct our steps towards what we took to be a large mass of stone, at the distance of half a mile from us, but which we were able to take up in our hands after one minute’s walk. This was more particularly the case when ascending the brow of a hill; *nor did we find the deception become less on account of the frequency with which we experienced its effects.*”—(Parry’s Three Voyages, vol. i. p. 211.)

In the subsequent volumes the same remark is repeated by Captain Parry after many months’ additional experience.

Another proof of the inefficiency of experience to alter the impression made on the organ of sense is, that when, in consequence of disease, double vision takes place, the judgment tells us that the object is single, and that the fault is in the eye; but, although we know and believe the object to be single, we nevertheless continue, so long as the disease lasts, to see the object *double*, and by no effort of our own can we succeed in seeing it single. Keeping these facts in view, can any thing more absurd be supposed, in the shape of philosophy, than to affirm, that by nature we see objects *double* and *inverted*, and by touch *learn* to *see* them single and upright? And yet, in the case before us, we find even Mr Wardrop regretting that he cannot determine the question, as his patient had *only one* eye, and consequently could not on any theory be expected to see more than single. As to upright sight again, from an inverted image, if, by any amount of experience, we could so far invert the relations established by the Creator between convex surfaces and the rays of light as to *reverse* the image on the retina, then indeed we might talk with some self-satisfaction of *learning to see* upright what nature had inverted; but when the experience of ten thousand years would be as ineffectual as the experience of a moment in altering a single law of nature, or in altering

a single property of a single ray of light, it seems to me to be the height of presumption to call in question the fitness of the Creator's workmanship, and to think for a moment that we can improve upon his designs and increase their excellence by any effort of ours. It is very true, that we cannot yet explain *how* we see every thing single and uninverted ; but when we know that many animals see accurately at birth and without experience, that no experience can alter the nature of the image formed in the retina, and that no blind man, on being suddenly restored to sight, ever saw objects either double or inverted, it is better at once to confess our ignorance of the manner, to hold fast by the fact, and to admit that we enjoy correct vision or correct judgment by the bountiful gift of the Creator, than to obscure the fact by a load of false explanations, or to deny it altogether till we shall be able to discover to our own satisfaction *how* the corresponding structure acts in producing the effect.

ARTICLE XIV.

REPORT TO THE PRESIDENT OF THE PHRENOLOGICAL SOCIETY, (EDINBURGH), ON THE STATE OF PHRENOLOGY IN ITALY. BY DR FOSSATI OF PARIS, CORRESPONDING MEMBER OF THE SOCIETY.

TO DR A. COMBE, PRESIDENT OF THE PHRENOLOGICAL SOCIETY.

SIR,—I have the honour of presenting to you six copies of a pamphlet which I have just printed, containing an introductory lecture to a course of Phrenology, delivered this year, and a report which I make to your Society on the state of Phrenology in Italy. I would have wished to offer something more worthy of the Society's acceptance, but, as it is,

you must be satisfied for the present with the good-will. Dr Gall has been ill for two months past, with an incomplete paralysis of the tongue and muscles of the face, and we (his relations, friends, and myself,) are not without much anxiety for his life. It is this which prevents me seriously engaging in any thing for the present.

Make acceptable, Mr President, to your estimable Society, in the little work which I hasten to send you, my most respectful homage, and believe me, with every regard, yours,
&c.

J. FOSSATI.

Paris, 23d May, 1828,
Rue d'Artois, No 7.

SIR,—It is long since I purposed to communicate to you the phrenological observations which came under my notice during my last visit to Italy in 1824 and 1825, to afford you some information on the actual state of the physiology of the brain in that country, and to give you some account of the efforts which I have made to promote the diffusion and just appreciation of the new science in my native country. A series of circumstances and occupations has hitherto prevented me. This delay has been painful to me; but I hope that you will nevertheless appreciate my zeal for the science, and that I shall be able, at the same time, to convince you of the high esteem which I feel for your Society, by making it the depositary of my reflections on this subject. You will remark, that all the notices which I shall give in this paper are in some measure isolated and independent of one another, and that it is only by their conjunction that they present some interest. But whatever they may be, I beg of you to receive them as a homage which is due to you from me.

It was in 1820, at the time of my first visit to Paris, that I became acquainted with Dr Gall. I immediately felt attached to him by the truest sentiments of esteem and friendship, and forthwith dedicated myself to the study of his doctrine under his own direction, and I have succeeded in obtaining

all the confidence and consideration which he has granted to his best pupils. In consequence of these arrangements, I was enabled to give, in his own house, a course of Phrenology to the medical students and to the public in the winter of 1824, Dr Gall having previously placed his own phrenological collection at my disposal. In the month of June of the same year, family-affairs called me to Italy, and I profited by the opportunity to traverse that country as far as Naples.

Before mentioning what I accomplished in this journey, I shall begin by acquainting you with what had been done in Italy previously, at least so far as comes within my own knowledge. I shall not go back to ancient authors to find those who may have written on the mental faculties and on the plurality of organs in the brain. Dr Gall, in the third section of his work, in speaking of the plurality of cerebral organs, has already referred to several. I must not, however, on such an occasion, forget to mention an Italian author who has not been cited by Dr Gall, although indeed he does not present any thing very remarkable or worthy of your notice; but I am more desirous of naming him, because in an article in the *Anthologia* of Florence for June 1825, in speaking of my demonstrations, some propositions and passages of that author are quoted with sufficient detail to lead to the conclusion that Dr Gall was not the first who made observations and experiments on this subject. The author of that article was evidently ignorant of the principles of the doctrine of the functions of the brain, and of the fact, that Dr Gall had already quoted many writers who spoke of the plurality of the cerebral organs. Leaving this question, we may only remark how ridiculous the conduct of that class of small authors is, who labour hard to discover whether a doctrine is ancient or modern before they will take any trouble to know it, and to ascertain whether it is true. But the author we allude to is Cornelius Ghirardelli, a native of Bologna, who wrote in 1630, under a title which is interesting for us, and which

would have been not unfit for the doctrine which we profess, particularly when considered in relation to the organology. It is *Céphalogie Physiognomique, divisée en dix décades, où d'après les documens d'Aristote, et d'autres philosophes naturels, on examine la physiognomie de 100 têtes humaines, que l'on voit gravées dans l'ouvrage, &c.* I am in possession of an edition of that work published at Bologna in 1630, in a quarto of 628 pages, with wood engravings. I am indebted for it to the kindness of the Professor Gozzi of Bologna.

If we consider the terms hitherto used to designate the doctrine of the functions of the brain, it will be seen that the word *Craniology*, first adopted by Dr Gall, signifies only a discourse about the skull, and that the word *Phrenology*, used by Dr Spurzheim, signifies only a discourse about the mind, while in reality we examine the brain and its organs, the skull, the external form of the head and forehead, which cannot certainly be considered as spiritual substances. We might as well have preserved the word *Psychology*, used by our predecessors, as it means discourse about the soul, because in fact there is no perceptible difference betwixt mind and soul in a philosophical sense. I am, therefore, not indisposed, even although the word Phrenology be generally received, to give the preference to *Céphalogy*, which signifies discourse about the head, as under this denomination is comprehended the study of the brain and its functions, the skull which represents it, and the external form of the head. The work of Ghirardelli is written in Italian, and at p. 87 contains a head on which are marked, in a line from the occiput to the forehead, the letters b, c, d, e, f, and above the letters on the margin we read a, *cerebrum*, b, *sensus communis*, c, *imaginatio*, d, *fantasia*, e, *æstimatoria*, f, *memoria*. You may perceive that these faculties, being only general attributes, phrenologically speaking, could not be represented in the brain by particular organs, and that this author has only followed those who have preceded him. It is the happy distinction that Dr Gall has made between the general attri-

butes and the true fundamental faculties that has opened up an entirely new path in researches of this kind; and it is by the diligent study of the functions of different nervous systems that we have been able to unravel the true from the false in the vague attempts of our predecessors to determine the faculties of the mind. I have, however, found nothing else in Ghirardelli's book worth your notice. He has followed the steps of the physiognomists who have preceded him, and he quotes Aristotle, Albertus Magnus, Porta, Grattarola, Ingegnero, Polemone, and many others.

I therefore leave the past, and come to modern times, and to the epoch of Dr. Gall. At Milan, the Journal of the Society for the Encouragement of Arts and Sciences, in the Number for February, 1808, had already published an extract from the lectures given at Paris by Dr. Gall, which the editor had copied from the *Gazette de France*. The principles and chief propositions of the doctrine of the functions of the brain were expounded in five different articles, nearly in the same manner as in Dr. Gall's lectures,—but destitute of all the proofs and demonstrations which such a study demands, and consequently destitute of all the charm and interest which the study of the physiology of the brain presents to those who give themselves to it.

Thus these articles passed, as all articles in journals pass, leaving only a faint trace on the minds of the few who read them.

In the same journal for July, 1808, I found an extract from the report of M. Cuvier to the Institute of Paris, on a memoir by Messieurs Gall and Spurzheim on the nervous system in general, and on the brain in particular. In that article, which is well written, there is an exposition of Gall's discoveries and principles in the anatomy of the encephalon.

In the same year, Dr. John Mayer of Naples published, in Italian, a small octavo volume, entitled, *Exposition of Gall's Doctrine of the Brain and Skull*. In the introduction, the

author says, that as to the matter of which it is composed, he has made use of private information communicated by the author in Germany, and of what had been published in a work printed at Dresden, in 1805, and in the *Journal Encyclopédique* of Naples, in 1806; and, lastly, of the ideas of M. Walther, *emeritus* professor of Bamberg. This little work contains the principles of Dr Gall's doctrines, explained with precision, and illustrated by an engraving of the 27 organs then ascertained, with marks on the situations of a few more, whose functions he had not discovered. And now allow me to make an observation, which, assuredly, you will be able to appreciate. Nowhere in that work is the name of Dr Spurzheim to be met with, and yet the doctrine of the functions of the brain is there given at length, as well as the principles of the anatomy and physiology. The reason of the omission is obvious. M. Spurzheim had as yet done nothing for the science. The scientific world knew Dr Gall alone. It is therefore an error in England, that, in speaking of the physiology of the brain, Gall and Spurzheim are always cited together, as if the discovery had not been made, and the doctrine demonstrated, without the combined labour of both authors. The founder of the doctrine is M. Gall alone; every thing written and published before 1808 proves it sufficiently. M. Spurzheim himself, who has deserved well of the science, cannot believe himself one of the founders of the intellectual physiology, since he only derived his knowledge of it from Dr Gall's lectures at Vienna, in 1804.* He acknowledges this in the preface to his "*Anatomy of the Brain*," lately published in London, as he had previously honourably done in his former works. If we were to add the names of all those who co-operate by their observations and labours to the consolidation of the doctrine, we would soon have a very

* Dr Fossati makes a mistake of four years. Dr Spurzheim attended Dr Gall's lectures in 1800, and was received by Dr Gall in 1804, as his colleague. — EDITOR.

numerous list. There is then, on your part, an error to rectify, and an injustice to atone for.*

The writings of Malacarne, Professor Rolando, and Dr Bellingeri, on the anatomy and physiology of the brain, are generally known, and need not detain us. Dr Chiaverini of Naples, who attended Dr Gall's lectures in Paris, published, in 1826, a work which treats of the different systems of medicine, in a few pages of which he gives an abstract of Dr Gall's doctrine. This exhausts all that I am acquainted with in Italian on the subject previous to my journey.

* In answer to the above charge, we beg leave to lay before our readers an extract from a note written to Dr Fossati by Dr A. Combe, dated 2d July, 1828, acknowledging receipt of Dr Fossati's memoir, and commenting on the passage referred to. The note was written hurriedly, and in French; but the following translation will make the subject sufficiently intelligible.—EDITOR.

"You blame us," says Dr Combe, "for not giving Dr Gall the glory which is due to him, and for ascribing too much to Dr Spurzheim by always connecting his name with that of the founder of our science, but I can hardly believe that such an accusation can proceed from you, and rather regard it as the suggestion of another. Read our Journal, and then say whether we, as well as yourself, do not, in almost every page, ascribe the glory of the discovery to Dr Gall alone. It is true, that we often enough speak of 'Gall and Spurzheim,' and, I think, not without reason, having the examples before us of our great founder himself, who expressly says, that 'he has assumed M. Spurzheim as the associate of his labours.' In accordance with which declaration, Dr Gall himself has, with one exception, published the only authentic accounts of the discovery under Dr Spurzheim's name as well as his own. He has published the Memoir to the Institute (*the first of their works*) under their joint names. On the same principles, he has given to the world the 'Treatise on the Innate Faculties,' &c. (his second work) under Dr Spurzheim's name and his own; and, finally, he has published the beginning of his great work under both their names; and in the preface expressly tells, that he has associated Spurzheim with him in his researches. Whose fault then is it, if it be a fault, that we speak of 'Gall and Spurzheim,' giving always to the former what is due to him? And nobody knows better than we how far the merit of the discoverer surpasses that of the most zealous follower, and nobody has rendered more, perhaps rather not so much, justice to Dr Gall as we have done. But I am willing to believe, that you are ignorant of what has been said on the subject in the Journal, and that you will hereafter entertain a different opinion from that which you now have. It is very true, that Mayer, Bischoff, &c. do not mention Spurzheim; but it is no less true, that Dr Gall has never acknowledged the works of these gentlemen to be authentic expositions of his doctrine, and that it was himself who taught us to speak of 'Gall and Spurzheim.' Observe, however, that we never confound the part which each has acted in the foundation of the doctrine, and that we look up to Dr Gall with a veneration at least equal to yours. We regard him as the greatest man of his age, and do not rank Dr Spurzheim so high."

It is now time to narrate to you the little that I have myself done to diffuse a knowledge of our science; which I do with the greater interest, that the Italian journals, the *Anthologia* of Florence excepted, did not dare to mention it.

Arrived at Milan, I commenced my demonstrations. My former colleagues, the physicians of the Grand Hospital, and some other professors of the capital of Lombardy, begged of me to show them the anatomy of the brain as exhibited by Dr Gall. On the 29th August, I had my first meeting at the hospital of the Maternity, in the class-room destined for the use of the midwives. The first professors of the city were present, and expressed great satisfaction. I demonstrated the anatomy, with the addition of as many physiological reflections as I had time to make. My auditors were particularly pleased with the unfolding of the convolutions.

I was requested to give a second lecture, which I did on 4th September, but not in the same hall. Dr Billi, the professor of midwifery, thought to do an acceptable service to the Austrian government by refusing his class-room, and was of opinion, that a physician who had not received a diploma from his masters, ought not to be permitted to profane an obstetrical amphitheatre! and yet the works of Dr Gall are publicly sold in Austria. In this instance, the zeal of the professor certainly outran the demand of his government. I was, in consequence, obliged to satisfy the laudable curiosity of so many estimable professors, by taking possession of the dead-room of the hospital, a place where was neither a chair, a convenient table, nor better daylight than could find a passage through a thick rail, and where every thing was disgustingly dirty; add to this, that Dr Mazzi, an old physician and provisory governor of the hospital, allowed us to make use of the brains only after having an order from the provincial delegation, to which Dr Vandoni, my friend and former colleague, was attached as physician. But, to the honour of the Milanese physicians, I must add, that these miserable *tracaseries*, and the inconveniences consequent upon them, did not

prevent their attending, and taking a deep interest in the subject.

I had a third meeting in a large saloon in the house of my friend, Signor Amb. Brivio, in which I gave a demonstration of the principles of Phrenology, and an idea of the organology. Having no collection with me, I made use of such skulls of men and animals as my friends could procure for me, or contribute from their own collections. I owe my thanks especially to M. Magiarette, a distinguished oculist, and professor of anatomy to the painters, and to M. Acerbi, a physician of great merit, and professor of natural history to the Lyceum of St Alexander, since dead; and if I were obliged to name every one that was present at both my lectures, I might cite every body of any distinction at Milan. It will be sufficient to name the celebrated Rasori, my friend and former master,—Dr Sacco, the rival of Jenner in Italy,—Dr Gautieri, a distinguished naturalist,—Drs Macchi, Nani, Vandoni, and many others, all of whom expressed high satisfaction.

At Milan, before my departure, I marked the situation of the organs on a head, added a short explanation, and gave the whole to a modeller to make the most of it.

In visiting the hospital of Trivulzio, destined for sexagenary old men, I remarked that most of them had Acquisitiveness very feebly developed. The depression, which I pointed out on the temporal region, was not an illusion on my part,—an illusion which, from the shrinking of the muscles in old age, might easily be made; for there were among them strong and fat men, which seemed to me remarkable, and led me to some moral reflections. How did it happen that persons, who had enjoyed sufficiently good health to arrive at the age of decay, had not mind enough, when in the vigour of life, to preserve or amass a little fund to render their old age independent? To what could it be ascribed, if not to the deficiency of that propensity, the result of their defective organization? This observation is, as you will perceive, of a

negative character, and is the opposite of that made by Dr. Gall and Spurzheim on a great number of thieves and robbers in the prisons of Germany, in whom the organ of Acquisitiveness was very largely developed. The deficiency or excess of the development of this organ ought then to lead men to the hospital or to the prison, if education, the laws, and other external means, did not assist in giving to the actions of such men a direction in conformity with social order and their own happiness.

Observations made on masses of individuals remarkable for some common quality are exceedingly useful to the Phrenologist. At Milan I was presented at a concert of a society of amateurs; every member, with one exception, had the organ of Tune strongly marked. Imagine my feelings at finding, when the concert began, that that one was charged only with the *melody* of the kettle-drum!

It is on the same principle that one might affirm, that in a convent of Jesuits, become such by inclination, the organ of Secretiveness will be found amply developed. That society, phrenologically considered, is founded on the organ of Secretiveness. They select each other according to the proofs given by the candidate of his progress in the arts of dissimulation, hypocrisy, and fraud, and we may consider their institution as a means and an occasion of exercising and putting into activity that primitive and fundamental quality of our nature. The institution of the Frères Hospitaliers, and that of the Sisters of Charity, are based on the exercise and activity of another organ, viz. that of the sentiment of Benevolence; and great brigands, like great warriors, delight to exercise that of Destructiveness. Each endeavours to gratify his own faculties, by associating himself with men who resemble himself.

On 1st October, I left Milan, to traverse Italy. At Professor Cavezzzolis', apothecary in chief to the Hospital of Lodi, and in high repute as a chemist, I saw several human monsters, among which I remarked three acepholi, well de-

veloped in all other parts. One wanted the head, neck, and shoulders; the inferior parts were well-formed. Is it not evident from this that the ganglionic system of the abdomen and thorax and a part only of the spinal marrow are sufficient for the organic life and perfect development of these parts? We shall leave to those who interest themselves about monstrosities the task of explaining to us the share which each must have had, and content ourselves with stating, that the *fœtus* possessed in its nervous system energy enough for the development of these parts, but nothing by which it could ever have manifested Sentiment, Consciousness, or Intelligence.

Next day I set out for Cremona. I remarked in the Lunatic Asylum of that town, a woman of 35 years of age, well-constituted in the organs of automatic life, but completely idiotic from infancy. Her head was two-thirds smaller than that of an ordinary woman. The coincidence of the extremely deficient size of the brain and the poverty of mental power had never attracted the attention of the physician. I begged of them to keep the skull after her death, but suppose that they will have forgotten it. In the same hospital I saw an idiot of 50 years of age, who had been 20 years in that state; during which time he had never worn any thing but a shirt, and, thus equipped, had walked about summer and winter, without suffering from either heat or cold, and without being ill. He belongs to a distinguished family. The external configuration of the head indicates a good development, and in his youth he was a man of talent. In this case we may remark, that when the functions of the brain are impaired by disease, without any affection of the nerves of automatic life, the organic or vegetative functions continue to go on, and the body is even less subject to external influences than before, affording a new proof of the distinctness of the two, and of the power which the sensations and irritation of the brain exercise over the state of the health.

In November I went to Venice, and having had an intro-

duction to Professor Aglietti, a celebrated physician and director of the Civic Hospital, he invited me to give a public dissection of the brain on Gall's principles, which I did on the 8th, in the anatomical hall of the Hospital. Messrs Aglietti, Castagna, Rima, Sette, physicians of the provincial delegation, Zanini, and all the first professors of the city, as well as many students and other persons, were present, and expressed their satisfaction.

If it came within my plan to lay before you my observations on the establishments for lunatics in Italy, I would certainly have much to say, but I must confine myself to that of Venice in particular. It is one of the hospitals which is still in the same state as during the last fifty years. But as there is now a general impulse towards the amelioration of these asylums in Italy, I most willingly dispense with any further remarks.

On quitting Venice, I remained two days at Ferrara. In the public library of that place the remains and skull of Ariosto are preserved behind a marble monument erected to his memory. Over this monument is placed a marble bust, which the librarian told me had been executed from a model made from a cast taken after death. In this bust the organ of Ideality is very largely developed, and a beautifully-formed forehead, broader and more perpendicular than those seen in the engravings, is visible. There is also a bronze medal of him preserved in the library, which was found beside his Testament.

From Ferrara, I proceeded by Bologna, and the coast of the Adriatic, to Ancona, Loretto, and Rome; at which last place I held a meeting on 13th December, at Professor Manni's, at which I gave an exposition of the anatomy and physiology of the brain, as I had done at Milan. Professors Carpi, Falcioni, Luppi, Manni, Metaxa, Sisco, Trasmondi, and many others, were present; and the Princes Dolgorowky, Kousakowsky, attached to the Russian embassy, and many savans and persons of distinction, also did me the honour to

attend. The expressions of satisfaction were enthusiastic, and many flattering compliments were paid to me. At this time I was so unfortunate as to make a very slight scratch on my left hand, which passed unnoticed at the moment, but which proved sufficient to inoculate me with the cadaveric virus, as it was followed by an extensive abscess, which deprived me of the use of my hand for two months. Except for this accident I would have repeated my demonstrations, and would probably have held a meeting in the palace of his excellency, the Russian ambassador, Count Italinsky, who expressed a wish to that effect. This would have relieved the timid, who were afraid to compromise themselves by assisting at a demonstration of the anatomy and physiology of the brain. But, for the honour of truth, I ought to add, that two prelates of the highest merit, and in a very elevated rank, testified the greatest anxiety to know the physiology of the brain. Do not believe that ignorance, superstition, and hypocrisy are so generally prevalent among the clergy of Italy, and especially of Rome, that truth, philosophy, and light, cannot reach the higher minds. Over all Italy, and in all classes, men of great talent are to be met with, and perhaps I am deceived in this point, but I believe that even at Rome a new order of ideas, which is destined, by the immutable decree of nature, to replace that obstinate and retrograde decrepitude which is extinguishing around us, is impressing itself upon the minds of the present generation. Wo to the nations who shall remain behind while the others advance! Lands of Egypt, Syria, and Greece, you remain for ages to attest this truth! Men of Italy, to whom Providence has confided power, let not the lesson be lost for you and your fellow-countrymen.

Professor Metaxa, a philosopher of much merit, having heard that we regarded the cerebellum as the organ of Amativeness, communicated to me the case of a lady, who to a mature age lived a quiet and regular life, and then gave way to extreme dissipation; shortly after which she was attacked

by a disease of which she died. Dissection exposed suppuration of the cerebellum.

In the cabinet of anatomy and pathology, in the hospital of the Spirito Santo, I saw the skull of a Russian soldier, preserved by Professor Flajani, in which is observed a curling-pin, penetrating between the hemispheres of the brain, almost as far as the great cornuissun, and passing by the side of the longitudinal sinus, but without touching it. The head of the pin is entirely covered by the bone. It is probable, as is remarked by M. Valentin, in his *Travels in Italy*, that this foreign body had been introduced at the fontanel soon after birth, for a wicked purpose. This mode of infanticide is an ancient one, and Fodère quotes several instances of it.

In the beginning of 1825 I was at Naples; but, on account of the state of my hand, was unable to give any demonstration prior to the 13th March. It then took place in the anatomical amphitheatre of the university, at the Hospital for Incurables. M. Pinto, professor of anatomy, M. Leonessa, professor of clinical surgery, Messrs Chiaverini, Lostritto, Magliari, Perrone, and many other medical men and students, were present. It was at Naples that the physicians were most circumspect, and that several professors were afraid to appear, for compromising themselves with the priest party, which has the chief influence in the government of that country. Is it not curious to see how the physiology of the brain makes the bigoted and the ignorant tremble, as if their souls were immediately to quit their bodies, and no longer find room within them? With what surprise will this *niaiserie* of our contemporaries be one day regarded!

In the same hospital I saw some curious excrescences from a skull; but, after seeing Mr Langstaff's cabinet in London, they are not worth notice.

I shall not detain you with any account of the hospital of Aversa at Naples. It is destined for the insane, and I have seen it, which is saying enough. The public has recovered

from the apathy into which they once were thrown by the wonders of M. Linguiti: they know how far that abbé imposed upon the government, and that at the hospital of Aversa the treatment of mental alienation is not a bit more advanced than elsewhere.

In returning from Naples, I stopped at Florence, and, on 27th April, held a meeting in the hospital of *Santa Maria Nuova*. At that lecture were present Professors Uccelli and Nespoli, the first occupied with teaching anatomy and clinical surgery,—the second with clinical medicine,—M. Lippi, and some other physicians,—the celebrated Borelli and Poerio, ancient Neapolitan deputies, &c. &c. His excellency the Count of Bombelles, ambassador from Austria, and some other distinguished persons, also honoured me by their presence. The result of this first demonstration was, that it was spoken of in society with delight, and I was requested to add a physiological exposition which accordingly took place in the great hall of the *Musée Royal de Physique*. I collected there all the skulls of men and animals possessed by the society, and procured by the professors, and from them gave a summary exposition of the organology and physiology. At this second meeting, besides the persons indicated above, there were present Count Bardi, director of the Royal Museums, Count Gino Capponi, Giordane, celebrated philosopher, Bertelotti, also a very learned man. I believe I have left the minds of all these estimable men impressed with the truth of the principles of the new doctrine. I have never received more flattering compliments than were paid me on this occasion. On the 14th, at the hospital of St Bonifazio, I dissected a brain in private for M. Lippi, a man whose paucity of talent places him below mediocrity, and who is at this moment one of the most vehement pamphleteers against Phrenology.

On the 13th, I held the last meeting at the Royal Museum, and the number of my auditors was still increased. Professors Betti, Gazzeri, Targioni, and others, who were not present at the first demonstrations, attended this one.

Count Bardi did me the honour to invite me to dine that day with the first professors of the city, and announced, that he had already given orders that the different preparations of the brain, as exhibited in the plates of Gall's large work, should be executed in wax for the anatomical museum. Thus at Florence, where the government is milder and more reasonable than in other parts of Italy, might be seen, in the same assembly, persons of a diplomatic character, and men celebrated for talent, but banished their native country for political opinions; and there the government encouraging practical studies without giving any weight to the uneasiness of the ignorant and fanatical. The Italians are still the men of past times, notwithstanding the abject condition into which the enemies of their prosperity have thrown them; and whenever they could, even with some danger, attend to the great ideas of philosophy and politics, they have done it. It is, consequently, almost certain, that the new doctrine will be cultivated in Italy by men of talent, and produce an ample reward of good fruits. It must, however, be acknowledged, that there is still much ignorance, and that to ignorance the priest party has added hatred and persecution; but, notwithstanding this, I am able to assure you, that the thinking class of Italians is vigorous in intellectual power and in courage, and will not be crushed by the audacious *ignorantins*.

On leaving Florence I went in the direction of Bologna, where I had time to give only one anatomical demonstration, on 21st May, in the amphitheatre of the University. Professors Tommasini, Mondini, Alessandrini, Medici, Gozzi, Mezzetti, and some medical men, were present. All expressed strongly their satisfaction and esteem.

At Bologna, in the burying-ground of the Chartreux, a skull, believed to be that of Guido Reni, the celebrated painter, is preserved. The head is small, and the organization is as follows:—The organs of Amativeness, Adhesiveness, Acquisitiveness, Self-esteem, Language, Tune, Number, Causality, and Firmness, are very feebly developed, and those

of Philoprogenitiveness, Love of Approbation, Eventuality, Locality, Constructiveness, Colour, Comparison, Ideality, Benevolence, and Imitation, are very large. If we consult the biography of this painter, and compare his manifestations during life with the organization just noticed, the probability of its being the true skull of Guido is great. Guido showed no talent but that of painting, and could scarcely read or write, not being acquainted with orthography. He was a gamester, more vain than proud, chaste, and powerful in the expression given to his figures, and in drawing and colouring.

The celebrated Mezzofante, who knows and speaks 48 languages, is professor and librarian at Bologna. He has not the eyes *à fleur de tête*; but the anterior inferior part of the forehead is greatly developed, and projects over the eyes, covering them like a roof. The cerebral convolutions of the inferior part of the anterior lobes of the brain must thus have a considerable development. At Bologna I terminated my anatomico-physiological demonstrations, and therefore finish this part of the subject.

In returning to France, I was obliged to go to Turin, although, as I intended to go by the Simplon, I did not mean to visit it. During my stay I was careful not to occupy myself with the physiology of the brain, as the Jesuits deal with brains after their own fashion, and that satisfied me. I was detained there much longer than I wished, by the unheard-of vexations and annoyance which I suffered from the custom-house establishment, which at the frontiers, because I had some old books in my possession, seized my manuscripts and baggage, to remit them, at the end of fifteen days, for the revision of the censors of the capital, where I was detained another fortnight. I preserve in the notes of my journey the names of the persons who so far disgraced the government of Piedmont and my dear country. Turin has many respectable professors, such as Rolando, Belingeri, Bonino, &c.; but, besides having their ideas clogged by

Note by the Editor.—Dr Fossati has appended several notes to this interesting report; but as they are not immediately connected with the subject of our pages, we have thought it unnecessary to give them a place. We consider Dr Fossati's report as a valuable contribution to the Society as well as to our Journal, and we hope that his recent election as a corresponding member of the Society may induce him to communicate frequently with the Phrenologists of this city. His intimate relations with Dr Gall afford him many advantages which we cannot boast of possessing. Along with the above report is a discourse "on the Influence of the Intellectual Physiology on Science, Literature, and Art," delivered as the opening lecture of a course on Phrenology, and which we may perhaps translate and lay before our readers in a subsequent number, but for which we have not room in the present.

ARTICLE XV.

NEW PUBLICATIONS IN PHRENOLOGY.

THE following works have appeared since our last publication. Our limits do not permit us to give more than the title of each.

I. A View of the Elementary Principles of Education, founded on the Study of the Nature of Man. By G. Spurzheim, M. D. *Second edition, improved and enlarged*, 8vo, pp. 237. Treuttel, Würtz, and Richter, London.

II. A Sketch of the Natural Laws of Man. By G. Spurzheim, M. D. 12mo, pp. 220.

TO THE READER.—The French MS. of this little volume I confided, in 1822, to my friend R. Willis, who was so kind as to translate it for me shortly after. It was promised so long ago as the middle of 1825, under the title of a Philosophical Catechism, and was actually printed the same year. I have, however, thought proper to alter the title to that which it now bears.

London, June 23d, 1828.

III. The Constitution of Man considered in relation to External Objects. By George Combe. 13mo, pp. 319.

IV. Elements of Phrenology. By George Combe. *Third edition, improved and enlarged.*

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Dr Spurzheim, in his visit to Edinburgh, in 1828, demonstrated the anatomy of the brain, and traced out the connexion between the organs, in a manner so clear and satisfactory, that the basis of his arrangement of them appeared obviously founded in nature. In this edition I have, in consequence, adopted his classification.

In the course of numerous conversations, he kindly afforded me an opportunity of discussing with him the few points of doctrine on which we had previously differed. With the exception of Concentrativeness, on which my opinions remain unchanged, he satisfied me that he was, in other particulars, in the right; and I have adopted his views accordingly.

Dr Spurzheim proposed some modifications of the lines marking out the organs on the bust; but as I have not yet had time sufficient to compare the proposed alterations with nature, I retain the old markings till farther consideration.

I gratefully acknowledge the uniform kindness with which Dr Spurzheim has in every instance met my inquiries, and the highly-philosophical liberality with which he has permitted me to benefit by his discoveries.

EDINBURGH, 12th July, 1828.

ARTICLE XVI.

ADDITIONAL CASE OF SPECTRAL ILLUSION, WITH ACCOMPANYING PAIN IN THE ORGANS OF FORM, SIZE, WEIGHT, COLOURING, ORDER, NUMBER, AND INDIVIDUALITY.

HAPPENING, on a very recent visit to the country, to be in company with Mrs D., the phenomena of spectral illusions chanced to be mentioned. Mrs D. took an especial interest in the discussion, as she had experienced both illusions and

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HAPPENING, on a very recent visit to the country, to be in company with Mrs D., the phenomena of spectral illusions chanced to be mentioned. Mrs D. took an especial interest in the discussion, as she had experienced both illusions and

local pain. She gave that pointed and clear account of both which we should expect from a well-educated, intelligent, and candid woman. In her waking hours this lady was literally tortured, with horrid faces glaring at her, and approaching close to her in every possible aggravation of horror. She was making a tedious recovery in childbed, when these symptoms troubled her. Besides the forms, which were of natural colour, though often bloody, she was perplexed by their variation in size, from colossal to minute. Mrs D. had also entire human figures, but they were always as minute as pins, or even pinheads, and were in great confusion and numbers, indicating morbid action of Order and Number. Like Mr John Hunter too, and the opium-eater, Mrs D. had illusive perceptions in that function of Weight which gives the perception of equilibrium, or just relation, to gravitation. She was dreadfully annoyed with the sensation of descending without the means of stopping. The opium-eater experienced falling as if for millions of miles, and considered that illusion the most insupportable of the many horrible ones which punished the insane debauchery of his pernicious habit. The only other illusion suffered by Mrs D. was flashing light, showing, as in Miss S. L., over-excited Colouring. The illusions did not, in her case, present entire spectres, recognisable as known individuals, but, like some of Miss S. L.'s and the opium-eater's, were visitations of what the latter calls "the tyranny of the human face."

Mrs D. then described the pain which accompanied her illusions, viz. acute pain in the upper part, or root of the nose, the seat of the organ of Form, and all along the eyebrows, which takes in Individuality, Size, Weight, Colouring, Order, and Number.

ARTICLE XVII.

MUSIC,—PERCEPTION OF BY THE DEAF AND DUMB.

SEVERAL cases are on record of persons deaf and dumb perceiving and being delighted with music. Mr G. Combe was informed, that a Mr Burns of Edinburgh was an example in point; and having procured an interview with him, the following conversation took place in writing:—

Mr Combe. "I have heard that you are fond of music, and wish you to describe how the influence of it reaches you, and how you feel, that an account of it may be published in the Phrenological Journal."

Mr Burns. "It was my sense," (*touching his arms.*)

Mr C. "Did your whole body feel, or only your hands and arms?"

Mr B. "My whole body."

Mr C. "Does the music excite your feelings,—make you gay, sad, &c.?"

Mr B. "Sometimes it raises my soul to the sky."

Mr C. "Do you *hear* any sound of the instrument at all?"

Mr B. "When I met the military drums I felt the sound delightfully, as well as the report of a cannon, quick and sharp, particularly like the sound of a whip."

Mr C. "But did this sound come in by the ear, or by the body?"

Mr B. "I sometimes could hear."

Mr C. "Can you hear a common piano-forte or violin by the ear?"

Mr B. "Yes, sometimes, whenever I stood near them."

Mr C. "Have you ever pleasure from music, when you hear no sound by the ear,—I mean, do the impressions made by musical instruments on your body give you pleasure when no sound is heard by your ear?"

Mr B. "No."

Mr C. "Then your *ear* must always be affected by the sound before you have pleasure from music?"

Mr B. "Yes, whenever I felt the sound of the warlike instruments, or music, drums, &c, they always excited my sense as powerfully as if I was in battles. I have displayed my fondness for music and the piano-forte since my boyhood. I used to play on an organ belonging to a friend of mine when I was a little boy,—it delighted my *senses* very much."

Mr C. "You mean your ear?"

Mr B. "Yes, I sometimes could hear very well, but not at a great distance."

Mr C. "Were you deaf from birth?"

Mr B. "I lost my hearing by a fall from my old nurse's arms, accidentally, at the age of seven months, according to the information of my mother and sisters, and also several of my old friends at Dundee, and my ears bled very much after my fall."

Edinburgh, 15th December, 1827.

The organs of Tune and Time are largely developed in Mr Burns, and, by the reports that had reached us, we were led to believe that the musical vibrations of the air on the nerves of Touch conveyed to him the perception of melody; but the foregoing dialogue shows that the sound reaches his ear, and that although that organ is impaired, it is not destroyed. It is highly probable that, if a minute investigation were made into other cases of a similar kind, the result would be the same.

NOTICES.

SIR WILLIAM HAMILTON AND PHRENOLOGY.

SIR WILLIAM has not yet published his "Facts and Fictions," announced several months ago. Our contributor, who was preparing a review of Sir William's correspondence with Dr Spurzheim and Mr Combe, was suddenly called to London on business, when only part of his article was prepared, and he did not return in time to complete it for this Number. It shall appear, however, in our next publication.

COPENHAGEN.—We have received the June Number of the Danish Phrenological Journal; and Dr Hoppa has sent an Icelandic skull, with an interesting account of the national character, to Mr G. Combe, for the Phrenological Journal.

NOTTINGHAM.—A medical member of the literary society of Nottingham lately read an essay "On the Theory of Dr Gall," which excited an animated debate, and brought forth an essay against the science from the pen of a clerical gentleman, who subsequently printed the *pith* of his objections in a newspaper. We have read the article, and find it, almost *verbatim*, a repetition of the objections urged by the opponents in Edinburgh six or seven years ago, but long since abandoned as untenable and absurd. Opponents would save themselves a great deal of trouble by looking into our earlier numbers, where they will find every sort of objections ready stated, and answers also. If the latter do not suit their purpose, they may follow the example of some of their coadjutors, and omit them. A smart reply appeared in another Nottingham newspaper, and there the controversy, so far as we have heard, terminated.

MANCHESTER.—Dr Holland has published a work "On Education," in which the subject is treated on phrenological principles. The science is rapidly gaining ground in Manchester. Dr Holland lately delivered a course of lectures at Halifax, where he received the most flattering encouragement from the first families.

HULL.—We are informed that Phrenology is here the subject of a public controversy at present, but we have not seen any of the articles. Truth always gains by discussion, and the pertinacity of attack shows that the deepest interest is excited by the science.

WEST INDIES.—We were called upon lately by Mr J—— from Trinidad, who offered to send us some Charib and negro skulls. He said his attention had been drawn to Phrenology by the following occurrence:—In sailing in a steam-boat from one West India island to another, Phrenology had been started as a subject of con-

versation. A lady, who was a passenger, defended it, and at last examined the head of a gentleman who travelled with him, and also his own head. Her account of his friend's character was strikingly accurate, and in his own case she was equally successful. He never saw the lady before nor since; but was convinced that the principles of the science must be founded in nature before such results could be exhibited. We mention this anecdote as a proof of the manner in which Phrenology is inescapably diffusing itself. We were not aware that it had a single disciple in the West Indies.

CUPAR-FIFE.—The interesting case of Dr A—— is unavoidably postponed till next Number, our pages having been filled up before we had completed some necessary inquiries. Our correspondent has our best thanks.

LANCASTER.—Sir James Gardiner, Bart., has kindly forwarded the skull of Jane Scott (lately executed for murder), to have a cast taken from it, and presented, in his name, to the Phrenological Society. In a letter to Dr A. Combe, accompanying the skull, Sir James mentions, that he will shortly send his notes of the case, and of the appearances of the brain on dissection, with as much of her previous history as he can obtain, in order that a regular report may be drawn up and published in our Journal, as he considers the case one of the most valuable that has ever occurred. We hope to be able to present this report in our next Number.

EAST INDIES.—Sir George S. Mackenzie, Bart., of Coul, who may justly be styled the founder of the Phrenological Society's museum, has just enriched its stores by the donation of no less than *TWENTY-ONE* skulls, specimens of different Asiatic tribes, procured at Madras by his second son, William Mackenzie, Esq., H. E. I. C. S., and selected for him with great care from the burying-places of the respective castes, by a native on whom he believed he could rely. This may not be sufficient to establish their authenticity, but they nevertheless form a nucleus for future collectors, and are highly valuable so far as they go. They are unquestionably Asiatic. Among the number are *five* Moors, *four* Gentoos, *three* Parias, *three* Armenians, *five* Brahmins, and one not marked. The Society's museum has been already considered as one of the richest extant in national skulls; and, allowing the above to be genuine specimens, it would, we believe, surpass all others in that particular branch of natural history. Such arguments as these skulls are a very appropriate answer to the allegation, that Phrenology is never heard of out of Edinburgh.

THE LONDON Medical and Surgical Journal has just published the first part of a clever and conclusive but smart answer to Mr Stone. The other part is promised next month.

THE
PHRENOLOGICAL JOURNAL.

No XIX.

ARTICLE I.

I.—*A Sketch of the Natural Laws of Man*, by G. Spurzheim, M.D. 12mo, pp. 220.

II.—*The Constitution of Man considered in Relation to External Objects*, by George Combe. 12mo, pp. 319.

THE reception of Phrenology by the generation which witnessed its discovery forms an interesting object of contemplation. Old and young, grave and gay, learned and unlearned, almost unanimously treated it with derision. Nevertheless they could not themselves rely on the judgment of condemnation, which they had so confidently pronounced. In their opposition, a pertinacity of hatred and a depth of vituperation appeared, never excited by a trivial subject, or manifested where the mind is at ease as to its own opinions. Phrenology carried with it a weight of reason and an array of facts that made a deep impression on reflecting men, even while they publicly scoffed; and we appeal to the consciousness of many, whether in their inward thoughts the idea did not more frequently present itself, that "this doctrine may be true," than they had courage to avow?

In a few years, when the truth of the science shall have ceased to be a subject of debate, the envious will endeavour to detract from its importance, by asserting that it communi-

cated no information which mankind did not previously possess : but the Phrenologist will point to the pages of wit, argument, and ridicule, directed against it by Jeffrey, Dugald Stewart, Gordon, Roget, and other men of undoubted talent and information, and ask how could doctrines be familiar to an age whose leaders on their appearance were affected with the astonishment and scorn manifested by these individuals ? Of thousands, however, who are now convinced by observation of the truth of Phrenology, there are few who have formed an adequate conception of its consequences. It appears to us, after the most sober and sedulous reflection, that no effort of human genius which the world has yet seen carries in its train results of such magnitude as the discovery of Dr Gall ; and we shall endeavour briefly to unfold the grounds on which we entertain this opinion.

In surveying the external world, we discover that every creature and every physical object has received a definite constitution, and been placed in certain relations to other objects. The natural evidence of a Deity and his attributes is drawn from contemplating these arrangements. Intelligence, wisdom, benevolence, and power, characterize the works of creation ; and the human mind ascends by a chain of correct and rigid induction to a great First Cause, in whom these qualities must reside. But we fear that hitherto this great truth has rather excited a sublime but barren admiration, than led to beneficial practical results. Men have long been convinced by their intellects, that God governs the world, and their moral sentiments have exulted and rejoiced in the contemplation of his attributes ; but so little has been understood philosophically of the principles of his moral government, that in secular affairs his sway has been in a great measure treated as a phantom. When God is called upon by men, a common expectation is, that he will exert some secret divine influence, or make some special exceptions from general rules, to aid them in their designs ; and only the reflecting few have conceived of him as the great Architect of

the Universe, who has created all things, bestowed on them a constitution, and established among them definite physical, moral, and religious relations, by acting in accordance with which sentient beings are assisted, cherished, and benefited, while they are rendered miserable in proportion as they depart from them. And even they who have arrived at this view have rather adopted it as a matter of faith, borne out and warranted by partial glimpses of the Creator's goodness and power, than been convinced of it by complete demonstration. If the world and all that it contains have received a definite constitution, and if enjoyment can be found only in acting in accordance with it, every individual ought in his daily life to regulate his conduct by that constitution; every community ought to form its institutions in harmony with it, and every nation ought to adhere to it in its laws and its foreign and domestic arrangements. Every individual ought to feel that in departing from it he acts against the will and the power of God; while in following it, he has the pledge of Omniscience for success and a beneficial result to his undertakings. Farther, if men were practically convinced that God is good, they would not doubt of his design to permit their enjoyment; and as a consequence, when they felt unhappy, they would be certain of a departure from his laws, and be led to inquire into their offences, that they might return to obedience. If they were satisfied to demonstration that He is intelligent and wise, they would not hesitate in believing, that consistency and unity of purpose pervade the whole of creation, and consequently that the happiness of each individual, of each community, and of each nation, is perfectly compatible with that of all other individuals, communities, and nations, whenever all of them shall place themselves in accordance with the divine arrangements, while none can be happy by neglecting them. The practical end to which this conviction and belief would tend would be, that from infancy to the close of life each individual would perceive that he is part of a great whole; that his happiness or

misery is inseparably connected with that of the world around him; and he would be led to dedicate his efforts, intelligently and constantly, to the promotion of the great scheme of creation, in place of habitually losing sight of God's arrangements in secular affairs, concentrating his whole views and feelings on his individual circle and its interests, mistaking the way of gratifying even these, and in the end reaping only vanity and vexation of spirit.

In no inquiry is it more necessary to be deeply imbued with the conviction of the Creator's benevolence, wisdom, and power, than in the survey of human nature. Man obviously stands pre-eminent among sublunary objects, and is distinguished by remarkable endowments above all other terrestrial beings. Nevertheless no creature presents such anomalous appearances as man. Viewed in one aspect he almost resembles a demon; in another, he still bears the impress of the image of God. Seen in his crimes, his wars, and his devastations, he might be mistaken for an incarnation of an evil spirit; contemplated in his schemes of charity, his discoveries in science, and his vast combinations for the benefit of his race, he seems a bright intelligence from Heaven. The lower animals exhibit a more simple and regulated constitution. The lion is bold and ferocious, but he is regularly so; and, besides, is placed in circumstances suited to his nature, in which at once scope is given and limits are set to the gratification of his instincts. The sheep, as a contrast, is mild, feeble, and inoffensive; but its external condition also is suited to its constitution, and it apparently lives and flourishes in as great enjoyment as the lion. The same remarks apply to all the inferior creatures; and the idea which we wish particularly to convey is, that the bodily organs, mental instincts, and external circumstances of these creatures, form parts of a system, in which adaptation and harmony are discoverable; and that the enjoyment of the animals depends on the adaptation of their constitution to their external condition. If we saw the lion one day tearing in pieces every animal that

crossed its path, and the next oppressed with remorse for the death of its victims, or compassionately healing those whom it had mangled, we should exclaim, what an inconsistent creature! and conclude that it could not by possibility be happy, owing to this opposition among the principles of its nature. In short, we should be strikingly convinced that two conditions are essential to enjoyment; first, that the different instincts of an animal must be in harmony with each other; and, secondly, that its whole constitution must be in accordance with its external condition.

When, keeping these principles in view, we direct our attention to man, the most formidable anomalies present themselves. The most opposite instincts or impulses exist in his mind; actuated by Combativeness, Destructiveness, Acquisitiveness, and Self-esteem, the moral sentiments being in abeyance, he is almost a fiend; on the contrary, when inspired by Benevolence, Veneration, Hope, Conscientiousness, Ideality, and Intellect, the benignity, serenity, and splendour of a highly-elevated nature beam from his eye and radiate from his countenance. He is then lovely, noble, and gigantically great. But how shall these conflicting tendencies be reconciled? And how can external circumstances be devised that shall accord with such heterogeneous elements? Here again a conviction of the power and goodness of the Deity comes to our assistance. Man is obviously an essential and most important part of the present system of creation, and, without doubting of his future destinies, we ought not, so long as our knowledge of his nature is incomplete, to consider his condition here as inexplicable. The nature of man has hitherto, to all philosophical purposes, been unknown, and both the purposes of the Creator and the situation of man have been judged of ignorantly and rashly. The sceptic has advanced arguments against religion, and crafty deceivers in all ages have founded systems of superstition, on the disorder and inconsistency which are too readily admitted to be inseparable attributes of human existence on earth. But we ven-

ture to hope that man will yet be found in harmony with himself and with his condition ; and it is because we anticipate that Phrenology will be the means of bringing these great truths to light, that we have said that its consequences are unknown, or perceived only by a few.

We are aware that some individuals, whose piety we respect, conceive that as the great revolutions of human society, as well as all events in the lives of individuals, take place under the guidance of the Deity, it is presumptuous, if not impious, in man to endeavour to scan their causes and effects. But it is obvious that the Creator governs man with reference to the faculties bestowed on him. The young swallow, when it migrates on the approach of the first winter of its life, is impelled by an instinct implanted by the Deity, and it can neither know the causes that prompt it to fly, nor the end to be attained by its flight. But its mental constitution is wisely adapted to this condition ; for it has no organs of Causality stimulating it to reflect on itself and external objects, and to inquire whence came its desires, or to what object they tend. Man, however, has been framed differently. The Creator has bestowed on him faculties to observe phenomena, and to trace cause and effect ; and *he has constituted the external world to afford scope to these powers.* We are entitled, therefore, to say, that it is the Creator himself who has commanded us to observe and inquire into the causes that prompt us to act, and the results that will naturally follow ; and our whole design is to show that it has been from non-performance of those duties that much of human misery has arisen. Let us take a brief sketch of the different aspects in which society has appeared as represented in history, and, to prevent confusion and repetition, let us select our own country as a type of the rest.

At the time of the Roman invasion the inhabitants of Britain lived as savages, and appeared in painted skins. After the Norman conquest, one part of the nation was placed in the condition of serfs, and condemned to labour

like beasts of burden, while another devoted themselves to war. They fought battles during day, and in the night probably dreamed of bloodshed and brula. These generations, severally, helped their own condition to be the permanent and inevitable lot of men. Next, however, have come the present arrangements of society, in which millions of men are shut up in cotton and other manufactories for ten or twelve hours a day; others labour under ground in mines; others plough the fields; while thousands of higher rank pass their whole lives in idleness and dissipation. Now, the elementary principles, both of mind and body, were the same in our painted ancestors, in their chivalrous descendants, and in us, their shop-keeping, manufacturing, and money-gathering offspring. Yet how different the external circumstances of the individuals of these several generations! If in the savage state the internal faculties of man were in harmony among themselves, and if his external condition was in accordance with them, he must then have enjoyed all the happiness that his nature admitted of, and he must have erred when he changed; or, if the institutions and customs of the age of chivalry were calculated to gratify his whole nature harmoniously, he must have been unhappy as a savage, and must be miserable now; if his present condition be the perfection of his nature, he must have been far from enjoyment, both as a savage and a feudal warrior; and if none of these conditions have been in accordance with his constitution, he must still have his happiness to seek. Every age, accordingly, has testified that it was not in possession of contentment; and the question presents itself, If human nature has received a definite constitution, and if one arrangement of external circumstances be more suited to yield it gratification than another, how has it happened that the British have never succeeded in satisfying themselves with their condition? Why did they institute the savage state? It was not fixed by the Creator as the permanent condition of man, otherwise they could not have escaped from it. The bear and

the wolf, the ox and the camel, do not change their states and avocations as men have done. What prompted them to betake themselves to war as their most honourable employment? Again we say that that condition was not the ultimate lot of man, because it also has changed. And what has led us now to spin and weave, to hammer and construct for all the nations of the globe? We answer, that this state may also disappear, and then it will not be regarded as the *ne plus ultra* of human enjoyment. Farther; if we have not reached the limits of attainable perfection, what are we next to attempt? Are we and our posterity to spin and weave, build ships, and speculate in commerce, as the highest occupations to which human nature can aspire, and persevere in these labours till the end of time? Or if changes are to follow, we may ask, who instituted the changes which history records? On what principles were they regulated? And who shall guide the helm in our future voyage on the ocean of existence? The British are here cited as a type of mankind at large; for in every age and every clime similar races have been run, and with similar conclusions. Only one answer can be returned to these inquiries. The Creator having designed a higher path for man, than for the lower creatures, has given him intellect to discover his own nature and that of external objects, and left him, in the exercise of it and his other powers, to discover for himself the method of placing his faculties in harmony among themselves and in accordance with the external world.

But as long as man remained ignorant of his own nature, he could not of design form his institutions in accordance with it. Until his own faculties became the subjects of his observation, and their relations the objects of his reflection, they operated as mere instincts. He adopted savage habits, because his animal propensities were not at first directed by moral sentiment or enlightened by reflection. He next adopted the condition of the barbarism, because his higher powers had made some advances, but

had not yet attained supremacy; and he now manufactures, because his constructive faculties and intellect have given him power over physical nature, while his Acquisitiveness, Self-esteem, and Love of Approbation, are predominant, and are gratified by these avocations. Not one of these changes, however, has been adopted from design, or from perception of its suitableness to the nature of man. He has been ill at ease in them all; but it does not follow that he shall continue for ever equally ignorant of his nature, and equally incapable of framing institutions to harmonize with it. The simple facts, that the Creator has bestowed on man reason capable of discovering his own nature and its relations to external objects; that He has left him to apply it in framing suitable institutions to ensure his happiness; that, nevertheless, man has hitherto been ignorant of his nature and of its relations, and that in consequence his modes of life have never been adopted from *enlightened views of his whole capacities and qualities*, but sprung up from the instinctive ascendancy of one blind propensity or another,—warrant us in saying, that a new era has begun with the discovery of Phrenology, and that the future may exhibit man assuming his station as a rational creature, pursuing his own happiness with intelligence and design, and at length attaining higher gratification to his whole faculties than he has hitherto enjoyed.

Two circumstances seem essential before the condition of man in this life can be regarded as fortunate: 1st, Such views of his constitution must be obtained as shall exhibit the various faculties of his mind in harmony with each other; as shall, for instance, reconcile Destructiveness with Benevolence, Acquisitiveness with Justice, Veneration with Causality, and, in short, each faculty with all the others. 2dly, External nature must be proved to be in accordance with the human faculties when thus fully understood, so as to afford all of them scope for legitimate gratification. The leading design of the works by Dr Spurzheim and Mr Combe, quoted in

the title, is to apply Phrenology to the elucidation of these subjects.

In the introduction, Dr Spurzheim defines the word philosopher, "Lover of Wisdom;" points out the aim of philosophy "to know objects and phenomena, and to show the possibility of making practical application of the knowledge acquired;" divides the objects of human knowledge into "*Matters*, and *Spirits* or *Souls*;" inquires into the opinions that have hitherto been held regarding these entities; points out the difference between matter generally and an organized body, and then proceeds to the philosophy of man.

"*What is the grand object of the philosophy of man?*—To determine accurately the fundamental powers of the human kind, and to ascertain the conditions under which these are exhibited; to indicate the causes of the functions variously modified in individuals; and to show the necessity of man's as well as of every other created being's submission to the laws which nature imposes, to enjoy happiness, and to secure success in his undertaking.

"*What is the signification of the word nature?*—Nature is a word to which three distinct meanings are attached:—1st, It designates the universe,—the heavens, the earth, all that meets the sense: 2nd, It is used to signify the First Cause personified; and may then be considered as synonymous with God: 3rd, It expresses essence—that which characterizes or constitutes a class of beings, or individuality. In this sense we say,—Every being acts according to its nature;—man in his nature is not an angel; we cannot change the nature of things; we cannot, for example, gather figs of thistles, nor grapes of thorns.

"*What are the characteristics of natural laws?*—Natural laws are inherent in beings, often evident, always demonstrable, universal, invariable, and harmonious.

"*How is the first character of natural laws, their inherence, explained?*—The laws of nature exist by creation, and enter as a part into the constitution of beings. The bile is secreted by the liver according to a natural law, and cannot be produced by the stomach for a similar reason. The stomach digests some substances by a natural law, and by the same cause does not digest others, as hemlock. Light exists in conformity with certain laws, and we cannot see that as great which is little, nor that as little which is great. The inherence of natural laws is therefore apparent.

"*Does the conclusion then follow, that all inanimate and all living beings are subject to natural governing laws?*—Of a necessity it does. All beings whatsoever have a determinate nature, all phenomena appear in conformity with fixed and invariable

" laws. Any opinion to the contrary is fraught with danger to mankind.

" *But do not we degrade the being—man, for instance,—whose nature we pronounce to be determinate?*—Most certainly we do not. The nature of the Supreme Being himself is determinate: he cannot desire evil, for his nature is perfection itself. Now we can more readily conceive the beings he made and endowed according to his pleasure, possessed of a determinate nature. Without this, indeed, there could be no regularity in their functions.

" *How is the second characteristic of natural laws, their regularity, to be apprehended?*—The regularity of phenomena is so generally evident as scarcely to require demonstration. Every one knows that without support his body falls, that his hand brought too near the fire is burned, that there is no vision without light, and so on. Occasionally, however, the natural laws are less apparent; still they may always be discovered by observation. The mechanician searches for, and finds, the laws of his art; the musician those of music; the colourist those of colour; the landscape-painter those of perspective, &c. A great number of natural laws are at present unknown, but they will be detected as soon as truth is placed above every other consideration—as soon as the free employment of the understanding is allowed, and men have learned to combine all the characters of a natural law.

" *How does the universality of natural laws appear?*—They are the same in every country. Chemistry has no other laws in France than it has in England, or in any other part of the earth; carbonic acid gas kills men in the north and in the south, in the east and in the west; combinations of colour unharmonious in any one country will not please the eye viewed by the sun of any other; the same laws pervade the music of every nation, of the English, French, Italians, Germans, &c.

" *How are the natural laws invariable?*—They have been the same in all ages. The principle of the lever, at the present time, is precisely the same as it was when the Pharaohs and Ptolemies lived; the rules of geometry and arithmetic have suffered no change since they were applied by Euclid and Archimedes; the beautiful forms of the Grecian marbles are still beautiful; goodness since the beginning has not ceased to be beneficent, and so on. Our knowledge may be more or less extensive, more or less exact, but the laws themselves never vary.

" *How are the natural laws harmonious?*—Nature has contrived all things as parts of a grand whole, and combined all her enactments in perfect harmoniousness. Natural laws are, consequently, mutually aidant. It is ignorance alone that prompts us occasionally to fancy discrepancies among them. The laws of vegetation act in accordance with those of animalization. The fruits and substance of plants yield food to innumerable tribes of animals, and the excretions and the dead bodies of animals in re-

"turn afford aliment to the infinite variety of vegetables that adorn the earth. The principle, that nothing is useless, is true physically as it is morally. Hence it follows, that philosophy is to seek for, determine, and expose the harmony of the natural code.

"Are the natural laws conformable to reason?"—From the above showing they must necessarily be so. They produce certain never-varying effects; whatever is undertaken in conformity with their decrees prospers, and penalty is always in proportion to their infringement.

"Must not natural laws also be Divine?"—As they exist, they are evidently effects of the will of the Creator, or God."

In Section I. Dr Spurzheim treats of the vegetative laws of man, and the conditions requisite for transmitting health of body and vigour of mind to offspring.

"What are the conditions required to accomplish the laws of propagation?"—Every person ought to have attained complete growth and mature solidity of fibre, and also to be in possession of confirmed good health, before putting himself into the way of having a family. Those who marry too young ruin their health, and procreate miserable, dwarfish, and weakly children, whose lives are useless to the commonwealth, and burdensome to themselves. Those, again, who have passed the meridian of life, or have suffered from debilitating causes before marriage, have also an infirm and degenerate family."

Dr Spurzheim next mentions the most important of the natural laws that relate to the preservation of individuals. They are, 1st, "A good innate constitution; and, 2nd, The laws of Dietetics, viz. of Temperance, Light, Air, Food, Cleanliness, Exercise, and Repose."

Section II. treats of the intellectual laws of man.

"What is it impossible for man to know?"—It is certain that he can know nothing in itself; neither the essence of his own nature nor that of external objects. The self of the conscious man is nothing more to him than an object of observation. Farther, man knows not either the beginning or the final destination of aught that is; he can only observe what is, and the conditions under which it is. These are the bounds of his knowledge.

"In what way can man know, or acquire knowledge?"—Only by observing and inducing; for reflection will no more reveal to man his own nature, than it will give him information of external objects, with their physical qualities and their relations. The study of man by the *a priori* method, or reflection, has retarded the knowledge of his nature extremely. Every one who entered on the subject assuming himself as the type of the whole species, confounded his own peculiarities with the essential or general con-

"stitution of humanity; as if one blind from birth should do well
"in imagining all mankind similarly circumstanced. Hence arose
"as many systems of mental philosophy as there were thinkers.

"*What can man know of his own nature?*—First, his body, its
"constituent parts, its functions, the laws of its preservation, and
"the laws of propagation; further, his own affective and intellec-
"tual operations, and those of his fellow-men; lastly, the condi-
"tions necessary to the manifestation of these, and the laws accord-
"ing to which they appear or are produced.

"*Man then, it appears, is destined to know?*—The law of na-
"ture proclaims that he is. Intelligence is as essential a part of
"man as his body. Without it, neither individuals nor the species
"could be preserved or continued.

"*Intelligence being an inherent part of human nature, why do
"some oppose its cultivation?*—All who do so are to be regarded
"with a very suspicious eye. They are such as would lead man-
"kind blindfolded, and obedient to their arbitrary will and plea-
"sure, for selfish and sinister ends. It is unquestionably much
"easier to render the ignorant and uncultivated subservient to un-
"worthy purposes, than the instructed and reasoning man. Know-
"ledge, too, and the habit of reflection, detect errors which pride
"and selfishness would willingly keep concealed. The abuses or
"misapplication of intellect have also been confounded with intel-
"lect itself. Now, intellect only supplies the means of executing,
"it gives not the motive or aim of the action.—As religion is not
"the less respectable because of the crimes committed in its name,
"neither is intellect because of its abuses.

"*Is it not reasonable then to cultivate the Understanding?*—The
"cultivation of the Intellect, provided justice and truth be made
"the objects of research, is not only reasonable, but is a prime duty."

In this Section, Dr Spurzheim enumerates the primitive
faculties of man, and points out the mode in which they are
ascertained.

In Section III. he treats of the moral laws.

"*Is man naturally a moral being?*—that is, a being who, by his
"own nature, views his actions in relation to duty and justice?—
"Yes: there is in his constitution an inherent sentiment, entitled
"Moral Conscience, which produces such an effect.

"*Who made the Moral Laws of man?*—The same Great Cause
"that traced the laws of man's physical and intellectual parts, also
"instituted laws for the regulation of his moral nature—God, the
"Author of the universe.

"*How does the Creator make known or reveal his laws?*—To
"inform man of his enactments, God has endowed him with under-
"standing, to observe and to learn those that implicate his physical
"and intellectual natures; and has implanted in his interior, sen-
"timents which make him feel the moral laws.

"Is there not another source whence knowledge of Moral Laws is derived?—Yes, Revelation; that is, knowledge communicated by God to man in a supernatural manner.

"What are the advantages of Revelation?—It is chiefly advantageous as it regulates man's uncertain notions of his Creator, and of his duties universally.

"Can man, by study of his physical and intellectual natures, acquire a greater quantity of knowledge than God has revealed to him?—There can be no doubt of it.

"Can Revelation change, or annihilate the laws of the vegetative and intellectual functions?—To say it can would be absurd, as putting God in contradiction with himself; for the God who reveals and the God who creates are one and the same.

"Are the advocates of the natural laws Atheists?—On the contrary, they entertain the most noble, the most pure, ideas of God; they never suppose him in contradiction with himself; they regard him as the impartial Parent of the universe, who treats all his children with equal kindness, who applies his laws without variation, and without any distinction of persons.

"Are the advocates of the natural laws changeable, and arbitrary in their judgments?—No; they recognize but one law for all men,—for the teacher and the taught, the governor and the governed. They have one determinate and invariable standard for their rule of conduct.

"Are the disciples of the natural laws hostile to the Christian code of morality?—No; there they find traces of wisdom truly divine; the better they know its precepts, the more do they admire. Indeed they cannot do otherwise than approve, for they see that true Christian morality is the morality of nature, announced in a positive manner; they, therefore, hope it will speedily be repurified from the pagan, profane, and superstitious observances with which its excellence has been contaminated, and its lustre obscured.

"What is the summary of the natural law of morality?—The faculties proper to man constitute his moral nature; whatever, therefore, is in conformity to the whole of these is morally good, whatever is in opposition to them is morally bad.

"What are the principal faculties which are peculiar to man?—Benevolence, Veneration, Justice, Hope, Marvellousness, Ideality, and Causality."

In Chapter I. OF MORALITY, Dr Spurzheim considers moral duties in detail, and points out the virtues and vices belonging to each faculty.

"What are the virtues of Love of Offspring?—The care which parents take in aiding the bodily and mental development of their children, in cultivating their talents, and superinducing habits useful to themselves and to their fellow-men; in a word, the efforts given to bring them up in the knowledge and practice

" of truth and justice. These are the noble virtues of this propensity.

" *Is such parental virtue common?*—It is unfortunately very rare. "Children are generally produced without a thought given to the laws of propagation, and reared merely to please, or serve as pastimes to their parents, who more commonly attend to what may flatter their own capricious tastes, than to what may be substantially useful to their children and the commonwealth. Children are frequently spoiled through indulgent weakness, (when their waywardness and unruliness are insufferable,) or they are forced to a mean and slavish submissiveness of deportment equally displeasing and pernicious. To give a good direction to Philoprogenitiveness requires a complete knowledge of human nature generally, and of the qualities necessary to guide the individuals—the particular subjects of attention.

" *What are the fundamental duties of parents to their children?*—To procure them a good organic constitution, to exercise those faculties with which they are endowed, and to choose them a suitable profession; to instruct them in the laws of their Creator; to show them the necessity of submitting to these, and to set them the example of obedience."

" *Is Respectfulness a natural Virtue?*—Yes; nature has implanted a primary sentiment, its cause, in the constitution of man.

" *What objects especially deserve the respect of man?*—The Supreme Cause; Parents, those who teach the laws of the Creator, those who watch over their accomplishment, and, in general, all that is Benevolent, Just, and True.

" *May respect ever be ill-directed?*—It is but too frequently bestowed altogether unworthily upon superstitious notions and observances, and upon antiquated forms, usages, and precedents.

" *This sentiment then requires guidance in its application?*—Certainly; and reason ought especially to rectify the errors it has committed in regard to religion. All the sentiments, without exception, are blind; and require the aid of intelligence in their operation; without it they can never act in harmony with the whole of the nature of man.

" *But does not Faith suffice to direct the religious sentiments?*—

" No; for Faith itself has induced men to admit the most contradictory propositions; moreover, that which Faith leads one to style venerable and holy, is often, by another, called absurd and impious.

" *The religious sentiments are given to man as sources of happiness, are they not?*—That they are given to produce good is evident; they are the gift of a good God, but hitherto they have been cruelly abused.

" *What course would most directly tend to abolish the errors, and, for the future, to avoid the disorders, which have been committed in the name of religion?*—It would be necessary to begin by permitting the free use of reason. This, too, would be the

"first step towards effecting the union of all religious people." As yet the blind lead the blind, but reason ought to enlighten and direct the religious as well as the other primitive feelings."

"*Are the functions of the intellectual faculties virtuous or vicious?*—They may be either. Intelligence is a means of doing both good and evil. To be virtuous it must second natural morality, which is the end of our being.

"*What is the vice or sin against Intelligence?*—It is Ignorance, the cause of a great number of evils. Ignorance commits endless errors; it acts unconscious of causes and of effects, and can never repair the disasters it occasions.

"*Is man's ignorance great?*—It is exceedingly great. The most common and necessary things are totally unknown to the bulk of mankind.

"*Why is man's ignorance so great?*—The cause lies in the generally small size of the organs of his intellectual faculties. This is also the reason why study is so commonly irksome and distasteful. Moreover, the civil, and especially the religious, governors of nations, have frequently opposed every sort of obstacle to the cultivation of intellect, and the diffusion of knowledge."

"*What is the basis on which the perfecting of mankind must proceed?*—Knowledge of human nature, and submission to the laws of the Creator.—Conviction that nothing can be created, but only modified and reproduced according to determinate conditions.

"*How might the adoption of the natural laws, as the rule of conduct, be most speedily effected?*—By governments exacting their practice, and joining the authority of example, by obeying their commands;

"*What are the essential requisites in a legislator?*—He ought to know the nature of the being for whom he enacts laws, to believe in natural morality, and to attest his belief by his actions.

"*Have men any right mutually to impose their wills as rules of moral conduct?*—They most certainly have not. There is but one Will that ought to be done—the Will of God, and this, in morality, commands imperatively to man, 'Thou shalt love thy neighbour as thyself.'"

Chapter II. treats of Religion.

In the 1st Section, Dr Spurzheim discusses religion in general; mentions the religious systems of Polytheism, Bethelism, and Monotheism, and accounts for their religion. His 2d Section treats of "Natural Religion;" the 3d of "Revealed Religion;" and the 4th "Of Christianity." The following extract is from Section IV:—

"*Does the Christian Religion permit reasoning?*—Jesus him-

"self has said, 'Those who have ears let them hear;' he declared that light is not made to be hidden, but to enlighten; and he reproached his own disciples for being *without understanding*. (Matt. xv.) Paul also says, 'I speak as to wise men, judge ye what I say.' (1 Cor. x. 15.) And again, 'Prove all things, hold fast that which is good.' (1 Thess. v. 21.) 'Beloved,' says John, 'believe not every spirit, but try the spirits whether they are of God.' (1 John iv. 1.)

"Does not Christianity recur to reasoning in order to demonstrate the existence of God?—It does. For 'every house,' says Paul to the Hebrews, chap. iii. ver. 4, 'has been builded by some men, but he that built all things is God.'

"In what manner, according to Christianity, does God make himself manifest?—The invisible perfections of God, his eternal power and his divinity, appear in the works of creation. (Rom. i. 20.)

"What are the chief attributes of God, as defined by Christianity?—God is a spirit. (John iv. 24.) He is love. (1 John iv. 16.) He is just and impartial, and regards not appearances nor persons. (Rom. ii. 11.) He rewards each according to his works. (Rom. ii.) He desires only good, and wills only the happiness of his creatures. (New Testament, *passim*.)

"How may the doctrine of Christianity be divided?—Into two principal parts; the one marvellous, the other moral.

"In what does the marvellous part of Christianity consist?—It includes whatever is incomprehensible, whatever is beyond the limits of observation;—such as the nature of God, the creation of the world by his will, his influence upon his creatures, his communication with men; the birth and the marvellous actions of Jesus Christ, the immortality of the soul, and the rewards and punishments in the life to come.

"This part of Christianity requires faith?—It depends entirely upon belief; for the points of which it is composed cannot be submitted to present observation.

"How does faith in these incomprehensible matters become efficacious and profitable?—When it induces the believer to practise the Christian virtues. 'It is necessary,' says Paul, 'to have faith which worketh by love.' (Gal. v. 6.) 'Faith,' says James, 'if it have not works, is dead in itself.' (James ii. 16, 26.)

"Have all Christian societies agreed upon the marvellous part of their doctrine?—No; this part has produced continual dissensions among Christians, and so long as any individual shall dare to think and to interpret for himself, these must continue. It is this part of Christianity also which has often been the cause, and always served as the pretext, for intolerance, and persecution on account of opinions.

"What is to be concluded from this?—That every man should be allowed to follow the dictates of his own conscience, and to believe whatever he conceives is true, provided the public tran-

"quillity be not disturbed, and the moral part of Christianity do not suffer.

"*Is this conclusion reasonable?*—It is in complete harmony with reason, and in conformity with the moral injunctions of Christianity, which command the preaching of the truth, but strictly prohibit all persecution. 'Go ye,' said Jesus to his disciples, 'into all the world, and preach the gospel to every creature. And whoever shall not receive you, nor hear your words, when ye depart out of that house or city, shake off the dust of your feet.'—The induction is the more reasonable, too, in as much as the Christian doctrine assures us that every one, at the final judgment, will have to render an account of his talents and of his deeds.

"*In what does Christian morality consist?*—The whole of it is reducible to two grand commandments, viz. 'Love God with your whole soul,' and 'Love your neighbour as yourself.'—(Matt. xxii. 37, 39.)

"*What is understood by the 'Love of God?'*—'This is the Love of God, that we keep his commandments.' (1 John v. 3.)

"*Can we, humanly speaking, 'love God,' such as he is represented in the gospel?*—Every rational and noble mind must love a God of peace, of goodness, of clemency, and of justice; a God who has compassion on our weaknesses, and who makes the sun to shine, and the rain to descend, even on those who obey not his will; a God who gives the breaker of his law time for repentance; who desires universal happiness; who gives the same laws to the whole human kind indifferently; and who will mercifully judge each by his works, without respect of persons.

"*Is the observance of certain symbolic forms sufficient to constitute a Christian?*—Far from it; though many, indeed, think it is. Forms are not the end of Christianity; they are mere means of engendering and nourishing a Christian spirit.

"*The Christian morality, in commanding love to God, implies in this entire submission to the will of the Creator, does it not?*—Conviction of the extent and importance of this commandment is of prime necessity. That the will of the Father—God, is to be done on earth as it is done in heaven, is an injunction clearly set forth. The propriety of distinguishing between the laws of God and the enactments of men is thus proclaimed. Jesus also said, that he could do nothing which he had not seen done by his Father, and he declared that only they who did the will of God were his brothers, sisters, or mother.

"*Does the will of God comprise the laws of creation, that is to say, the natural laws?*—Undoubtedly; because God and the Creator are one. Man indeed can create nothing; endowed with understanding to observe phenomena, and the conditions under which they occur, he can, however, imitate in some degree that which the Creator shows him; in other words, he can prepare the conditions necessary to elicit determinate effects; but he is still

"dependent on the laws of the Creator for the success of his undertakings. Jesus said, 'My doctrine is not mine, but his that sent me.' (John vii.)"

While we approve generally of the principles of this work, (for we think some of them liable to be questioned,) and are convinced that they require only to be understood and applied greatly to advance practical morality and pure religion, we think it due to truth and the author's own reputation to qualify our approbation so far as to remark, that Dr Spurzheim has not done himself justice in the manner in which he has announced his views. A catechism is too abrupt, concentrated, and unconnected for the vehicle of profound philosophical principles, when first presented to the mind,* and does not admit of that extended explanation, careful limitation, and strict argumentative proof, which are necessary to convey to the student correct ideas on important ethical views. We should have liked to have seen several pages in illustration and evolution of each of many of the principles, which are settled in as many lines in the catechism. Besides these objections to the mere mode of the work, we do not hesitate to add, that we think the charge of ignorance and puerility against man without distinction of men, which appears in the first paragraph of the preface, clearly unfounded, and calculated to create hostility to the work before it is even read. Were the charge well-founded, it would, moreover, be of itself conclusive against the aphoristical mode of teaching adopted by the author. But, in farther justice to Dr Spurzheim, we add, that we can see the cause of these certainly too satirical observations. He wrote his strictures on political and religious abuses in a foreign country. In his youth he had seen his master, Dr Gall,

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driven from Vienna by the intolerance of a bigoted government. His own lectures were interdicted by the influence of the Jesuits in France, at the very time when he was composing the work now before us; and he found the yoke under which he was placed so intolerable, and so adverse to all freedom of thought and philosophical inquiry, that, after a residence of ten years, he was led to abandon Paris, and seek the free moral atmosphere of Britain, to obtain scope for the energies of his mind. In short, the despots and priests of the continent must be kept in view, with all their intolerances, oppressions, and frauds, as the administrators of government, morals, and religion, with whom the author was best acquainted; and then the severest of these observations will appear not only just but called for; which, if supposed to be directed against the political, moral, and religious systems of this country, will, in spite of their acknowledged faults, be regarded as hostile and overstrained. We wish not to be misapprehended. We are cautioning the reader of this catechism not hastily to decide unfavourably on the scope and tendency of the work, either because of the brevity of its method, or the plain dealing of its strictures, but to bestow on each principle that share of deliberate reflection which its essential value demands; and we trust that Dr Spurzheim himself will yet make it a text-book for several volumes in ample elucidation of his important subject.

The SECOND WORK in our title is Mr Combe's Essay on the Constitution of Man and its Relations to External Objects. In the preface Mr C. says, "My first notions of the natural laws were derived from an unpublished MS. of Dr Spurzheim, (the work No 1 of the title), with the perusal of which I was honoured some years ago; and all my inquiries and meditations since have impressed me more and more with a conviction of their importance." "I have endeavoured," he continues in the preface, "to avoid all religious controversy. 'The object of Moral Philosophy,' says Mr Stewart, 'is to ascertain the general rules of a wise and virtuous conduct in life, in so far as these rules may be discovered by the unassisted light of nature; that is, by

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Chapter I. treats of Natural Laws, and gives essentially the same view of them as that already quoted from Dr Spurzheim's sketch. Chapter II. is on “ The Constitution of Man and its Relations to External Objects.” It consists of seven sections. In the *first* man is considered as a physical being.—“ To discover the real effect of the physical laws of nature on human happiness, we would require to understand, *1st*, “ The physical laws themselves, as revealed by mathematics, natural philosophy, natural history, and their subordinate branches; “ *2dly*, The anatomical and physiological constitution of the human body; *3dly*, The adaptation of the former to the latter. These expositions are necessary, to ascertain the extent to which it is possible for man to place himself in accordance with the physical laws, so as to reap advantage from them, and also to determine how far the sufferings which he endures fall to be ascribed to their inevitable operation, and how far to his ignorance and infringement of them.”—Page 25.

In section *second* man is considered “ as an organised being.” It points out how the exercise of the osseous, muscular, and nervous systems of the human body, under the guidance of intellect and moral sentiment, and in accordance with the physical laws, contributes to enjoyment, and treats of the adaptation of the external world to the exercise of these elements of our constitution. In the *third* section man is considered as “ an animal,—moral—and intellectual being.” It contains brief specifications of his powers, with their uses and abuses. Section *fourth* is on the “ Faculties of Man compared with each other.” The conclusion arrived at is, that, among the human faculties, the moral sentiments and intellect are intended by the Creator to hold the supremacy, that the external world is framed in relation to this arrangement, and that man cannot enjoy the full happiness of which his nature is susceptible until the arrangements of society and

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"1st, So many hours a day would require to be dedicated by every individual in health, to the exercise of his nervous and muscular systems, in labour calculated to give scope to these functions. The reward of obeying this requisite of his nature would be health, and a joyous animal existence; the punishment of neglect is disease, low spirits, and death.

"2dly, So many hours a day should be spent in the sedulous employment of the knowing and reflecting faculties; in studying the qualities of external objects, and their relations; also the nature of all animated beings, and their relations; not with the view of accumulating mere abstract and barren knowledge, but of enjoying the positive pleasure of mental activity, and of turning every discovery to account, as a means of increasing happiness, or alleviating misery. The leading object should always be to find out the relationship of every object to our own nature, organic, animal, moral, and intellectual, and to keep that relationship habitually

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"*8dly*, So many hours a day ought to be devoted to the cultivation and gratification of our moral sentiments; that is to say, in exercising these in harmony with intellect, and especially in acquiring the habit of admiring, loving, and yielding obedience to the Creator and his institutions. This last object is of vast importance. Intellect is barren of practical fruit, however rich it may be in knowledge, until it is fired and prompted to act by moral sentiment. In my view, knowledge by itself is comparatively worthless and impotent, compared with what it becomes when vivified by elevated emotions. It is not enough that intellect is informed; the moral faculties must simultaneously co-operate; yielding obedience to the precepts which the intellect recognises to be true. One way of cultivating the sentiments would be for men to meet and act together, on the fixed principles which I am now endeavouring to unfold, and to exercise on each other in mutual instruction, and in united adoration of the great and glorious Creator, the several faculties of Benevolence, Veneration, Hope, Identity, Wonder, and Justice. The reward of acting in this manner would be a communication of direct and intense pleasure to each other; for I refer to every individual who has ever had the good fortune to pass a day or an hour with a really benevolent, pious, honest, and intellectual man, whose soul swelled with adoration of his Creator, whose intellect was replenished with knowledge of his works, and whose whole mind was instinct with sympathy for human happiness, whether such a day did not afford him the most pure, elevated, and lasting gratification he ever enjoyed. Such an exercise, besides, would invigorate the whole moral and intellectual powers, and fit them to discover and obey the divine institutions.

"Phrenology is highly conducive to this enjoyment of our moral and intellectual nature. No faculty is hid, but, on the contrary, each, when properly gratified, is a fountain of pleasure; in short, man possesses no feeling, of the legitimate exercise of which an enlightened and ingenuous mind need be ashamed. A party of thorough practical Phrenologists, therefore, meets in the perfect knowledge of each other's qualities; they respect these as the gifts of the Creator, and their great object is to derive the utmost pleasure from their legitimate use, and to avoid every approximation to abuse of them. The distinctions of country and temperament are broken down by unity of principle; the chilling restraints of Cautionness, Self-esteem, Secretiveness, and Love of Approbation, which stand as barriers of eternal ice between human beings in the ordinary intercourse of society, are gently removed; the directing sway is committed to Benevolence, Venera-

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tion, Conscientiousness, and Intellect; and then the higher principles of the mind operate with a delightful vivacity unknown to persons unacquainted with the qualities of human nature.

Intellect also ought to be regularly exercised in arts, science, philosophy, and observation.

"I have said nothing of dedicating hours to the direct gratification of the animal powers; not that they should not be exercised, but that full scope for their activity will be included in the employments already mentioned. In muscular exercises, Combativeness, Destructiveness, Constructiveness, Acquisitiveness, Self-esteem, and Love of Approbation, may all be gratified. In contending with and surmounting physical and moral difficulties, Combativeness and Destructiveness obtain vent; in working at a mechanical employment, requiring the exertion of strength, these two faculties, and also Constructiveness and Acquisitiveness, will be exercised; in emulation who shall accomplish most good, Self-esteem and Love of Approbation will obtain scope. In the exercise of the moral faculties, several of these, and others of the animal propensities, are employed; Amativeness, Philoprogenitiveness, and Adhesiveness, for example, acting under the guidance of Benevolence, Veneration, Conscientiousness, Ideality, and Intellect, receive direct enjoyment in the domestic circle. From proper direction also, and from the superior delicacy and refinement imparted to them by the higher powers, they do not infringe the moral law, and leave no sting or repentance in the mind.

Finally, a certain portion of time would require to be dedicated to taking of food and sleep.

"All systems hitherto practised have been deficient in providing for one or more of these branches of enjoyment. In the community at Orbiston, formed on Mr Owen's principles, music, dancing, and theatrical entertainments were provided; but the people soon tired of these. They had not corresponding moral and intellectual instruction. The novelty excited them, but there was nothing substantial behind. In common society, very little either of rational instruction or amusement is provided. The neglect of innocent amusement is a great error."

Chapter III. is entitled to what "Extent are the Miseries of Mankind referable to Infringements of the Laws of Nature?" and contains four sections treating of the following subjects:—On the calamities arising from infringement, 1st, Of the physical laws; 2dly, Of the organic laws; 3dly, Of the moral law; and, finally, Of "the moral advantages of punishment."

Chapter IV. is "on the combined Operation of the Natural Laws," and notes on the subjects discussed in the text are given in the appendix.

Our limits permit us to give only the Conclusion, which is as follows:—"The question has frequently been asked,

"What is the practical use of Phrenology, even supposing it to be true? A few observations will enable us to answer this inquiry; and, at the same time, to present a brief summary of the doctrine of the preceding Essay.

"Prior to the age of Galileo, the earth and sun presented to the eye phenomena exactly similar to those which they now exhibit; but their motions appeared in a different light to the understanding.

"Before the age of Newton, the revolutions of the planets were known as matter of fact; but the understanding was ignorant of the principle of their motions.

"Previous to the dawn of modern chemistry, many of the qualities of physical substances were ascertained by observation, but their ultimate principles and relations were not understood.

"Knowledge may be rendered beneficial in two ways,—either by rendering the substance discovered directly subservient to human enjoyment; or, where this is impossible, by modifying human conduct in harmony with its qualities. While knowledge of any department of nature remains imperfect and empirical, the unknown qualities of the objects belonging to it may render our efforts either to apply or to accord with those which are known altogether abortive. Hence it is only after ultimate principles have been discovered, their relations ascertained, and this knowledge has been systematized, that science can attain its full character of utility. The merits of Galileo and Newton consist in having rendered this service to astronomy.

"Before the appearance of Drs Gall and Spurzheim, mankind were practically acquainted with the feelings and intellectual operations of their own minds; and anatomists knew the appearances of the brain. But the science of mind was very much in the same state as that of the heavenly bodies prior to Galileo and Newton. This remark is borne out by the following considerations:—

"*First*, No unanimity prevailed among philosophers concerning the elementary feelings and intellectual powers of man. Individuals, deficient in Conscientiousness, for instance, denied that the sentiment of justice was a primitive mental quality of mind. Others, deficient in Veneration, asserted that man was not naturally prone to worship, and ascribed religion to the invention of priests.

"*Secondly*, The extent to which the primitive faculties differ in relative strength was matter of dispute, or of vague conjecture; and there was no agreement whether many actual attainments were the gifts of nature, or the results of mere cultivation.

"*Thirdly*, Different modes of the same feeling were often mistaken for different feelings; and modes of action of all the intellectual faculties were mistaken for faculties themselves.

“ *Fourthly*, The brain, confessedly the most important organ of the body, and that with which the nerves of the senses, of motion, and of feeling, directly communicate, had no ascertained functions. Mankind were ignorant of its uses, and of its influence on the mental faculties. They indeed still dispute that its different parts are the organs of different mental powers, and that the vigour of manifestation bears a proportion, *ceteris paribus*, to the size of the organ.

“ If, in physics, imperfect and empirical knowledge renders the unknown qualities of bodies liable to frustrate the efforts of man to apply or to accommodate his conduct to their known qualities; and if only a complete and systematic exhibition of ultimate principles, and their relations, can confer on science its full character of utility,—the same doctrine applies with equal or greater force to the philosophy of man. For example,

“ Politics embrace forms of government, and the relations between different states. All government is designed to combine the efforts of individuals, and to regulate their conduct when united. To arrive at the best means of accomplishing this end, systematic knowledge of the nature of man seems highly important. A despotism, for example, may restrain some abuses of the lower propensities, but it assuredly impedes the exercise of reflection, and others of the highest and noblest powers. A form of government can be suited to the nature of man only when it is calculated to permit the legitimate use, and to restrain the abuses of all his mental feelings and capacities; and how can such a government be devised, while these principles, with their spheres of action, and external relations, are imperfectly ascertained? Again, all relations between different states must also be in accordance with the nature of man, to prove permanently beneficial; and the question recurs, How are these to be framed while that nature is matter of conjecture? Napoleon disbelieved in a sentiment of justice as an innate quality of mind; and, in his relations with other states, relied on fear and interest as the grand motives of conduct: but that sentiment existed; and, combined with other faculties which he outraged, prompted Europe to hurl him from his throne. If Napoleon had comprehended the principles of human nature, and their relations, as forcibly and clearly as the principles of mathematics, in which he excelled, his understanding would have greatly modified his conduct, and Europe would have escaped prodigious calamities.

“ Legislation, civil and criminal, is intended to regulate and direct the human faculties in their efforts at gratification; and to be useful, laws must accord with the constitution of these faculties. But how can salutary laws be enacted, while the subject to be governed, or human nature, is not accurately understood?—The inconsistency and intricacy of the laws, even in enlightened nations, have afforded themes for the satirist in every age; and how could the case be otherwise? Legislators provided rules for

“ directing the qualities of human nature, which they conceived themselves to know ; but either error in their conceptions, or the effects of other qualities unknown or unattended to, defeated their intentions. The law, for example, punishing heresy with burning, was addressed by our ancestors to Cautiousness, Self-love, and other inferior feelings ; but Intellect, Veneration, Conscientiousness, and Firmness, were omitted in their estimate of human principles of action ; and these set their law at defiance.

“ There are many laws still in the statute book, equally at variance with the nature of man.

“ Education is intended to enlighten the intellect and moral sentiments, and train them to vigour. But how can this be successfully accomplished, when the faculties and sentiments themselves, the laws to which they are subjected, and their relations to external objects, are unascertained. Accordingly, the theories and practices observed in education are innumerable and contradictory, which could not happen if men knew the constitution of the object whom they were training.

“ Morals and religion, also, cannot assume a systematic and demonstrable character, until the elementary qualities of mind, and their relations, shall be ascertained.

“ It is presumable that the Deity, in creating the moral powers and the external world, really adapted the one to the other ; so that individuals and nations, in pursuing morality, must, in every instance, be promoting their best interests, and, in departing from it, must be sacrificing them to passion or to illusory notions of advantage. But, until the nature of man, and the relationship between it and the external world, shall be scientifically ascertained, and systematically expounded, it will be impossible to support morality by the powerful demonstration of interest, (as here supposed), coinciding with it. The tendency in most men to view expediency as not always coincident with justice, affords a striking proof of the limited knowledge of the constitution of man and the external world still prevalent in society.

“ The diversities of doctrine in religion also obviously owe their origin to ignorance of the primitive faculties and their relations. The faculties differ in relative strength in different individuals, and each person is most alive to objects and views connected with the powers predominant in himself. Hence, in reading the Scriptures, one is convinced that they establish Calvinism ; another, possessing a different combination of faculties, discovers in them Lutheranism ; and a third is satisfied that Socialism is the only true interpretation. These individuals have, in general, no distinct conception that the views which strike them most forcibly, appear in a different light to minds differently constituted. A correct interpretation of revelation must harmonize with the dictates of the moral sentiments and intellect, holding the arifmal propensities in subordination. It may legitimately go beyond what they, unaided, could reach ; but it cannot contradict them ;

“ because this would be setting the revelation of the Bible in opposition to the inherent dictates of the faculties constituted by the Creator, which cannot be admitted ; as the Deity is too powerful and wise to be inconsistent. But mankind will never be induced to bow to such interpretations, while each takes his individual mind as a standard of human nature in general, and conceives that his own impressions are synonymous with absolute truth. The establishment of the nature of man, therefore, on a scientific basis, and in a systematic form, must aid the cause both of morality and religion.

“ The professions, pursuits, amusements, and hours of exertion of individuals, ought also to bear reference to their physical and mental constitution ; but hitherto no guiding principle has been possessed to regulate practice in these important particulars,—another evidence that the science of man has been unknown.

“ But we require only to attend to the scenes daily presenting themselves in society, to obtain irresistible demonstration of the consequences resulting from the want of a true theory of human nature, and its relations. Every preceptor in schools, every professor in colleges, every author, editor, and pamphleteer, every member of Parliament, counsellor and judge, has a set of notions of his own, which in his mind hold the place of a system of the philosophy of man ; and although he may not have methodized his ideas, or even acknowledged them to himself as a theory, yet they constitute a standard to him by which he practically judges of all questions in morals, politics, and religion ; he advocates whatever views coincide with them, and condemns all that differ from them, with as unhesitating dogmatism as the most pertinacious theorist on earth. Each also despises the notions of his fellows, in so far as they differ from his own. In short, the human faculties too generally operate simply as instincts, exhibiting all the confliction and uncertainty of mere feeling, unenlightened by perception of their own nature and objects. Hence public measures in general, whether relating to education, religion, trade, manufactures, the poor, criminal law, or to any other of the dearest interests of society, instead of being treated as branches of one general system of economy, and adjusted each on scientific principles in harmony with all the rest, are supported or opposed on narrow and empirical grounds, and often call forth displays of ignorance, prejudice, selfishness, intolerance and bigotry, that greatly obstruct the progress of improvement. Indeed, unanimity, even among sensible and virtuous men, will be impossible, so long as no standard of mental philosophy is admitted to guide individual feelings and perceptions. But the state of things now described could not exist, if education embraced a true system of human nature and its relations.

“ If, then, Phrenology be true, it will, when matured, supply the deficiencies now pointed out.

“ But, here, another question naturally presents itself, How are

" the views now expounded, supposing them to contain some por-
 " tion of truth, to be rendered practical? In answer I remark;
 " that the institutions and manners of society indicate the state of
 " mind of the influential classes at the time when they prevail. The
 " trial and burning of old women as witches, point out clearly the
 " predominance of Destructiveness and Wonder over Intellect and
 " Benevolence, in those who were guilty of such cruel absurdities.
 " The practices of wager of battle, and ordeal by fire and water, in-
 " dicate Combativeness, Destructiveness, and Veneration, to have
 " been in great activity in those who permitted them, combined
 " with much intellectual ignorance of the natural constitution of
 " the world. In like manner, the enormous sums willingly expend-
 " ed in war, and the small sums grudgingly paid for public improve-
 " ments; the intense energy displayed in the pursuit of wealth;
 " and the general apathy evinced in the search after knowledge and
 " virtue, unequivocally proclaim activity of Combativeness, Destruc-
 " tiveness, Acquisitiveness, Self-esteem, and Love of Approbation;
 " with comparatively moderate vivacity of Benevolence and Intel-
 " lect, in the present generation. Before, therefore, the practices
 " of mankind can be altered, the state of their minds must be
 " changed. No practical error can be greater than that of esta-
 " blishing institutions greatly in advance of the mental condition of
 " the people. The rational method is first to instruct the intellect,
 " then to interest the sentiments, and, last of all, to form arrange-
 " ments in harmony with, and resting on, these as their basis.
 " The views developed in the preceding chapters, if founded in
 " nature, may be expected to lead, ultimately, to considerable
 " changes in many of the customs and pursuits of society; but to
 " accomplish this effect, the principles themselves must first be as-
 " certained to be true, then they must be sedulously taught; and
 " when the public mind has been thoroughly prepared, then only
 " ought important practical alterations to be proposed. It appears
 " to me that a long series of years will be necessary to bring even
 " civilized nations into a condition systematically to obey the natu-
 " ral laws.

" The preceding chapters may be regarded, in one sense, as an
 " introduction to an essay on education. If the views unfolded in
 " them be in general sound, it will follow that education has scarce-
 " ly yet commenced. If the Creator has bestowed on the body, on
 " the mind, and on external nature, determinate constitutions, and
 " arranged these so as to act on each other, and to produce happi-
 " ness or misery to man, according to certain definite principles,
 " and if this action goes on invariably, inflexibly, and irresistibly,
 " whether men attend to it or not, it is obvious that the very basis
 " of useful knowledge must consist in an acquaintance with these
 " natural arrangements; and that education will be valuable in the
 " exact degree in which it communicates such information, and
 " trains the faculties to act upon it. Reading, writing, and ac-
 " counts, which make up the instruction enjoyed by the lower or-

"*data*, are merely means of acquiring knowledge, but do not constitute it. Greek, Latin, and mathematics, which are added in the education of the middle classes, are still only means of obtaining information: so that, with the exception of the few who pursue physical science, society dedicates very little attention to the study of the natural laws. In following out the views now discussed, therefore, each individual, according as he becomes acquainted with the natural laws, ought to obey them, and to communicate his experience of their operations to others; avoiding, at the same time, all attempts at subverting, by violence, established institutions, or outraging public sentiment by intemperate discussions. The doctrine now unfolded, if true, authorises us to predicate that the most successful method of ameliorating the condition of mankind, will be that which appeals most directly to their moral sentiments and intellect; and, I may add from experience and observation, that, in proportion as any individual becomes acquainted with the real constitution of the human mind, will his conviction of the efficacy of this method increase.

"The next step ought to be to teach those laws to the young.* Their minds, not being pre-occupied by prejudices, will recognise them as congenial to their constitution; the first generation that has embraced them from infancy will proceed to modify the institutions of society into accordance with their dictates; and in the course of ages they may at length be acknowledged as practically useful. All true theories have ultimately been adopted and influenced practice; and I see no reason to fear that the present will prove an exception. The failure of all previous systems is the natural consequence of their being unfounded; if this one shall resemble them, it will deserve, and assuredly will meet with a similar fate. A perception of the importance of the natural laws will lead to their observance, and this will be attended with an improved development of brain, thereby increasing the desire and capacity for obedience.

"Finally, If it be true that the natural laws must be obeyed as a preliminary condition to happiness in this world, and if virtue and happiness be inseparably allied, the religious instructors of mankind may probably discover in the general and prevalent ignorance of these laws, one reason of the limited success which has hitherto attended their own efforts at improving the condition of mankind; and they may perhaps perceive it to be not inconsistent with their sacred office, to instruct men in the natural institutions of the Creator, in addition to his revealed will, and to recommend obedience to both. They exercise so vast an influence over the best members of society, that their countenance may hasten, or their opposition retard, by a century, the practical adoption of the natural laws, as guides of human conduct."

* "Some observations on Education will be found in the *Phrenological Journal*, vol. iv. p. 407."

The reader will perceive, by the extracts now given, that these works open up a wide field of interesting study, and that, while the physiologist appropriately treats of Phrenology as the functions of the brain, the moral philosopher, political economist, and divine, will find in it principles of the highest utility in directing their exertions to enlighten and benefit mankind.

ARTICLE II.

PROCEEDINGS OF THE PHRENOLOGICAL SOCIETY OF WASHINGTON, RELATIVE TO THE TWO LECTURES AGAINST THE SCIENCE OF PHRENOLOGY, DELIVERED AT THE COLUMBIAN COLLEGE BY DR THOMAS SEWALL, PROFESSOR OF ANATOMY AND PHYSIOLOGY, IN MAY, 1828.*

PREFATORY NOTICE.

THE form in which the following sheets are presented has been deemed necessary to counteract the effects that the lectures therein noticed were ostensibly intended to produce, as well as to show the assiduity and zeal on the part of the members to meet, and, if necessary, to rebut any opposition, whether anatomical, physiological, pathological, or psychological to this system of mental philosophy. The opposition in the present instance, though unexpected, originating from *apparently* so respectable a source, could not be but otherwise hailed as a harbinger of further fruitful investigations in the cause of *truth*,—the object of the Society; and has been

* We have received from the secretary of the Phrenological Society of Washington the report printed in the text. Our readers will perceive that the proceedings detailed in it are an exact counterpart of those of Sir William Hamilton and the Edinburgh Phrenologists.

encountered as promptly and as consistently as the interest of the institution would admit; and if it has not been rebutted, it will be seen to proceed from causes beyond the control of the Society.

PROCEEDINGS.

Saturday, 27th May, 1826.

At a special meeting of the Society, called this day, the following resolution was adopted:—

Whereas it has been represented to the members of this Society, that Doctor Thomas Sewall, professor of anatomy in the Columbian College of this district, did lately deliver in said college, two lectures connected with the subject of Phrenology; and as the object of this Society is “The study of mind, particularly in reference to its connexion with corporeal phenomena,” it behoves us to give a respectful attention to any observations either for or against the science: Therefore, be it resolved, that the corresponding and recording secretaries be a committee to wait upon or write to Dr Sewall, and respectfully request him, in the name of the Society, to have the above-mentioned lectures published, or to furnish a copy of the same for the use of the Society.

The Society adjourned.

Tuesday, 6th June, 1826.

The Society met agreeable to notice, to receive the report of the committee, which was made by Dr Randall, as follows:—

The committee to whom the resolution of the Society in relation to the lectures of Dr Sewall, passed on the 27th May, was referred, beg leave to report,

That, in compliance with the directions of the Society, they enclosed the resolution with a note, to which they requested Dr Sewall's immediate attention.

In answer to this note the committee received the following letter, in which Dr Sewall declines either publishing or furnishing a copy of his lectures, for reasons therein stated.

To the Corresponding and Recording Secretaries of the Washington Phrenological Society.

GENTLEMEN,—I have just received your note, communicating the vote of the Phrenological Society relative to the lectures I have recently delivered to the students of the Columbian College.

It is true, that two of those lectures were on the subject of Phrenology. The object of the one was to exhibit briefly to the class an outline of the science of Phrenology as it is now taught, and that of the other to show how far this science consists with the anatomical structure and organization of the brain, the cranium, &c.

These lectures, composed without any view to publication, were not written out at length, being designed only to aid in an anatomical demonstration. They are therefore, in their present state, not prepared for the press, nor in such a condition as to form an intelligible manuscript, which, together with other considerations, necessarily deprives me of the opportunity of complying with the request of the Society. It will, however, afford me great pleasure to have the attendance of the Phrenological Society at the delivering of these lectures the next college term, of which due notice shall be given, and an invitation presented, through you, to the association.

Be pleased, gentlemen, to present to the Society my grateful acknowledgments for the respectful notice they have taken of my labours, and beg them to accept my best wishes for the honour and advancement of an association whose object is the investigation of truth.

With sentiments of the highest consideration and respect,
I am your obedient and humble servant,

THOS. SEWALL.

Washington City, 27th May, 1826.

This communication appearing entirely unsatisfactory, and the committee being desirous to remove all objections that

were urged, or might be urged, on the part of Dr Sewall, to gratify the wishes of the Society, addressed to him the following note; in which they propose to him to deliver the lectures, which he had delivered at the Columbian College, before the Phrenological Society, either by invitation, or as a member of the Society.

Washington, 30th May, 1826.

DEAR SIR,—Your letter of the 27th, addressed to the secretaries of the Phrenological Society of the city of Washington, was duly received, and they regret to find, that, for reasons stated therein, it will not be convenient to you to accede to the wishes of the Society, as expressed in the resolution which was handed to you in our former communication.

The members of the Phrenological Society are desirous to hear the lectures which you lately delivered on Phrenology, at an earlier date than would be afforded by the polite invitation to attend your delivering of them at the next college term. My colleague and myself are, therefore, directed to inquire whether it would be convenient and agreeable to you to deliver your lectures before the Phrenological Society, at their room, on some very early day or days?

The Society having been established for the purpose of investigating the truth or fallacy of the science of Phrenology, and its members being exceedingly desirous, in pursuing their inquiries, to hear all that can be said against as well as in favour of it, would be gratified by your becoming a member of their association. By this course all objections to delivering the lectures before the Phrenological Society will be removed, and, by thus extending the field of our investigation, we shall each have a better opportunity of arriving at truth. You will please to give us early information of your wishes on this subject.

Should you decline identifying yourself with the Society, either by becoming a member, or by lecturing in their room, you would, probably, not object to deliver your lectures at some convenient place in the city, where the members of the

Society could individually attend, together with many other friends of science, who are anxious to hear your views upon this subject.

We trust that the motives of the Society in thus pressing this matter will not be misunderstood. I beg to subscribe myself for my colleague and self, yours, very respectfully,

P. THOMPSON,

Correspond. Sec. to the W. P. Society.

To this communication the committee received no written answer; but in a personal interview with one of the committee, Dr Sewall expressed a desire to become a member of the Society, and his willingness to deliver the lectures in question before them as soon as they could be prepared for that purpose. The committee, therefore, propose, that they be authorised to confer with Dr Sewall after his election as a member of this Society, to appoint some convenient day for him to deliver his lectures before the Society, and that the recording secretary be authorised to call a meeting for that purpose.

The following resolution was then passed: Resolved, That the report of the committee be adopted, and the accompanying documents recorded with the minutes of the Society; and that the recording secretary be authorised to call a meeting of the Society, as requested by the committee.

The Society then went into the election of new members. Dr Thomas Sewall, nominated at the last meeting by Dr Randall, was unanimously elected a resident member.

The Society having no further business before them, adjourned.

Tuesday, July 11, 1826.

The Society met for the purpose of receiving the report of the committee appointed to make arrangements with Dr Sewall for the delivery of his lectures. The report of the committee was read as follows:—

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The following resolution was then passed: Resolved, That the report of the committee be adopted, and the accompanying documents recorded with the minutes of the Society; and that the recording secretary be authorised to call a meeting of the Society, as requested by the committee.

The Society then went into the election of new members. Dr Thomas Sewall, nominated at the last meeting by Dr Randall, was unanimously elected a resident member.

The Society having no further business before them, adjourned.

Tuesday, July 11, 1826.

The Society met for the purpose of receiving the report of the committee appointed to make arrangements with Dr Sewall for the delivery of his lectures. The report of the committee was read as follows:—

Washington, July 11, 1826.

The committee, as directed by the resolution of the Phrenological Society of the 6th of June last, notified Dr Sewall of his election as a resident member, and requested him to appoint some suitable day for the delivery of his lectures, as promised in the event of his being elected a member of the Society. In answer to this communication from the corresponding secretary, Dr Sewall expressed his gratification at the honour that had been conferred on him, and his willingness to fulfil the wishes of the Society as soon as he could make the necessary preparation for that purpose: and in a conversation with the recording secretary, who had waited on him to ascertain when the Society should be assembled to meet him, he requested two or three weeks' delay on account of the great press of his professional duties, promising at the same time to notify the secretary as soon as he should be prepared.—More than three weeks having expired without hearing from Dr Sewall, the corresponding secretary wrote to him, and reminded him of the expiration of the time he had fixed for fulfilling the wishes of the Society, and again requested him to fix a day for the delivery of his lectures. In answer to this communication the following letter was received:—

Washington City, June 26, 1826.

DEAR SIR,—In answer to your note of the 24th, I regret to be under the necessity of saying, that the difficulty of procuring a recent brain, necessary for my demonstrations, together with important professional duties, will in all probability render it inconvenient for me to address the Phrenological Society until the autumn or winter. Whenever a convenient opportunity does present due notice shall be given.—With great respect, I am yours, &c.

THOS. SEWALL.

Mr P. THOMPSON, Cor. Sec. P. S.

The report of the committee and the letter of Dr Sewall

having been read, the following resolution was passed: Resolved, That the committee appointed to confer with Dr Sewall be requested to report, at an adjourned meeting to be held on the 15th inst. at 6 o'clock, P. M. an abstract of the facts in the case, and to offer suitable resolutions for the adoption of the Society.

The Society adjourned to the 15th inst. at 6 o'clock, P. M.

Saturday, July 15, 1826, 6 o'clock, P. M.

The Society met agreeable to adjournment, when the following report was received:—

Washington, July 15, 1826.

In obedience to the resolution of the Society of the 11th inst. your committee have to report, That soon after the close of Dr Caldwell's lectures on Phrenology, delivered in this city in May last, it was generally understood that Professor Sewall was to deliver lectures at the Columbian College, for the purpose of refuting the arguments advanced by Dr Caldwell in favour of that science. Two lectures were accordingly delivered by Professor Sewall, in the presence of the students of the Columbian College, and citizens and distinguished strangers specially invited for that purpose. At the close of these lectures it was asserted by several gentlemen, whose opinions have great weight in society, that these lectures contained a triumphant refutation of all the arguments advanced in favour of *that science*, the truth of which our Society was established to investigate. These were the circumstances under which the resolution inviting Dr Sewall to publish, or furnish the Society with a copy of his lectures, was passed: and this course of proceeding was the more particularly incumbent on the Society, in consequence of Professor Sewall's having carefully abstained from inviting to attend his lectures, not only all the members of this Society, but indeed all others who were known to have investigated the science, or were disposed to combat his arguments against it. It will be seen, by a reference to the correspond-

ence, and the reports of your committee, that the professor has not only refused to publish, or to furnish the Society with a copy of his lectures, but that, after he had promised to deliver them before the Society, and had been elected a member for that purpose, he has, by a course of conduct highly unbecoming the dignity of his station, avoided the fulfilment of that promise; and has, finally, postponed the delivery of his lectures until the autumn or winter.—The professor's excuse of want of time cannot be admitted; for the Society only asked of him a repetition of the lectures he had just delivered, which certainly could require but little additional preparation. They asked it, too, at that season when the professor's professional engagements could not have been very pressing. Nor can we admit the sufficiency of his excuse for the last postponement, the want of a recent brain; for we have ascertained from those who were present that he had no other brain at his former lectures than can be obtained with ease at any season, and no other can therefore be considered indispensable at a repetition of these lectures. Your committee have further to remark, that the impressions which the professor has endeavoured to convey, in his letters and conversations with the committee, that these lectures were a part of a course delivered in the line of his duty, and not, as he says, gotten up for the occasion, are in direct contradiction to the facts in the case.—They were two isolated lectures, delivered, not at his lecture-room, but at the Columbian College;* not before his medical class, some of whom were not invited, but before the students of the college, and citizens and strangers specially invited for that purpose; not during his regular anatomical course, but long after that had been completed. And that these lectures were gotten up for the occasion, and were intended to do

* The medical faculty of that college deliver their course in a house situated at the corner of F and 10th streets, in the centre of the city, while the college is located on the heights, from two to three miles north of it.

away any impression that might have been made by the lectures of Dr Caldwell, we have a right to infer, from their immediately succeeding them, and from the acknowledgments made by the professor's friends on the occasion.

From all this, your committee feel themselves authorised to conclude, That Professor Sewall *did* voluntarily step forward, as a champion, to do away by his lectures the impression that had been made in favour of Phrenology by those of Dr Caldwell : That he *did* make his arrangements so as to have as hearers those only who were unacquainted with the science against which he lectured : That he *did*, when called upon to furnish this Society with a copy of his lectures, assign an insufficient reason for his refusal : That he *did*, after promising to deliver his lectures before the Society, and after he had been elected a member for that purpose, evade doing so : And, finally, he has, without an adequate cause, postponed the fulfilment of his promise to such a remote period as to defeat the object of the Society in their endeavours to correct erroneous impressions, and to show their willingness to combat his arguments.

Your committee, therefore, propose for the consideration of the Society the following resolutions :—

The Society then took into consideration the resolutions submitted by the committee, and, after amendments, adopted the following :—

Resolved, That every proper effort has been made by this Society to obtain from Professor Sewall the two lectures which he delivered at the Columbian College against the science of Phrenology, or the substance of them ; and that their want of success is the more to be regretted, because, in conversation, these lectures have been referred to as containing a complete refutation of the arguments in favour of that science.

Resolved, That the failure of their application is entirely imputable to the professor himself, who, in the judgment of this Society, has betrayed an indisposition to expose his argu-

ments to those who have thus manifested a desire to investigate them.

Resolved, That this Society disapproves of the conduct of Professor Sewall in relation to the said lectures.

Resolved, That this Society deems it inconsistent with self-respect to make any further application to Professor Sewall on the subject of his lectures, leaving it to him to deliver them before the Society or not as he may think advisable.

Resolved, That the corresponding secretary be directed to enclose to Professor Sewall a copy of these resolutions.

The Society then adjourned.

ARTICLE III.

REPORT ON THE CASE OF FOUR SPANISH PIRATES, BY THE PHRENOLOGICAL SOCIETY OF WASHINGTON, UNITED STATES.

WE have been favoured with the following very interesting report by Dr Brereton, secretary to the Phrenological Society of Washington, accompanied by casts of the skulls of the four pirates who form the subject of it. The accompanying cut will convey an idea of the development of Tardy, the leader of the conspiracy.



The brain is large ; the mass situated behind the ear is enormously great ; while the anterior lobe, the seat of the intellectual faculties,

is small ; and the coronal surface, although not deficient in breadth, does not rise high ; so that it presents a relatively deficient volume compared with the base of the brain. The space marked I. indicates the seat of the intellectual organs. The plate does not give an adequate idea of the great predominance of the propensities over the sentiments on account of the impossibility of representing the rounded form of the skull on a flat surface : the difference is very great. The cast of the skull itself is in the Phrenological Society's collection, and is well worthy of inspection. In the Washington Society's report and observations the particular development and measurement of each skull is stated at full length.—EDITOR.

ALEXANDER TARDY,

The master spirit, which instigated the following atrocities, was a native of the island of St Domingo, and accompanied his father to the United States, where he sought refuge after the revolution of that island. The father of Alexander had several children, some of whom are still residing in different parts of the United States, and are useful and respectable citizens. Alexander was the eldest son, and engaged in mercantile business in Philadelphia, where he was for a long time respectable and respected by all who knew him. He was, however, of a restless disposition, and from want of attention failed in business. This occurrence gave a different direction to his pursuits ; for, disgusted with Philadelphia, which had witnessed his prosperity, he resolved to abandon it and go to sea ; and through the influence of some friends, Captain Smith, who was in command of the Congress frigate, was prevailed upon to appoint him his steward. How long he served in this capacity is not known. In 1813, he accompanied the frigate to Portsmouth, where he was discharged. It was supposed that he had poisoned Captain Smith, but without foundation, as the physician who attended him in his last illness has declared that he died of a pulmonary complaint. From Portsmouth, Tardy went to Boston, where he remained in the service of a German dentist, from whom he received some instruction in his art. Tardy, however, had acquired a taste for dissipation, and to furnish the means

of gratifying his inclinations he had recourse to his neighbours' pockets. Being detected in stealing the pocket-book of a Captain Balch at Colonel Wilde's stage-office in Boston, he was rewarded by three years' confinement in the state-prison. When released from his imprisonment, he seemed to be possessed with the most invincible hatred against the Americans; and revenge was the glowing passion of his soul, which absorbed every other: even avarice was made subservient to this first and most cherished passion; and he afterwards executed many a deed of the darkest villany from no other assignable motive than revenge. From Boston he found his way to New York, where he took passage in a schooner commanded by Captain Latham, for Charleston, and, after poisoning the passengers, had the audacity to charge the cook, who was a black man, and had always previous to that period sustained a good character, with the commission of the crime. Upon this charge the cook was tried, convicted, and executed at Charleston, although he declared that he was innocent until the last. Tardy remained at Charleston, where he had sufficient address to obtain employment; but his irregularities soon alienated the friends he had made, and, having contracted debts, which he was unable and unwilling to pay, he thought it prudent to decamp, and took passage for Boston. There, however, he was soon recognized, and chose to retreat. He took passage in the packet schooner *Regulator*, commanded by Captain P. Norton, for Philadelphia, under the name of Dr Tardy. Here he again resorted to poison. One evening after supper every one in the cabin was taken sick except Tardy, who acted as physician, and declared, that, from the symptoms, he was convinced that they had taken poison. The passengers, who regarded the presence of Tardy as extremely fortunate, freely took the medicines which he administered, and all of them recovered except a German passenger, who died, and was committed to the deep. On the following morning

Tardy detected arsenic among the sugar, which he had abstained from using during the voyage, and suggested his suspicions of the steward, (a black man.)

A strict examination into all the circumstances was had at Philadelphia, where, from the testimony of the captain and the consignees, in relation to the good character of the steward, his guilt was doubted, and he was permitted to remain at liberty. Tardy, however, persisted in declaring him guilty, and evinced such anxiety to have him convicted, that he became suspected. These suspicions were augmented by his demanding the property of the German passenger, under pretence of a verbal promise from him to that effect, in consideration of his services as physician during his last illness. The consignees refused peremptorily to give up the property to Tardy, and set a spy over him, who ascertained that he stayed but one night at the City Hotel, and then removed to an obscure residence. There he planned another pinnny, to be executed on board one of the Richmond packets; but, having been betrayed by one of his expected accomplices, he was charged with having poisoned the passengers of the *Regulator*, and was condemned to seven years' hard labour in the Walnut Street prison. There he was found very intractable, and boasted frequently of having committed more murders than any convict in the penitentiary, and threatened amply to revenge himself when released. After his discharge, he took passage in the brig *Francis* for Savannah; but, being recognized as he was about to embark, he and his baggage were put ashore without much ceremony. Afterwards Tardy found his way to Charleston, where he made an attempt to run off with a pilot-boat, but was detected, brought back, and notwithstanding the Mayor of Charleston was apprized of his character and former crimes, Tardy found means to escape and make his way to Havana. Tardy was a man of small stature, rather delicately formed, his complexion was dark, and his countenance, which at first seemed destitute of expres-

sion, became animated when engaged in conversation, and he seemed to possess extraordinary command over the muscles of the face. He never laughed, though a smile was occasionally playing about his lips. He usually spoke in a low tone of voice, and articulated with great distinctness. He represented himself as fifty-seven years of age, had gray hair, and after his death it was discovered that he wore a set of artificial teeth. He possessed the most unbounded confidence in his resources, and viewed mankind with the utmost contempt; his address is said to have been consummate, and he frequently boasted of his knowledge of human nature, and his power to sway the mind, and mould it to his purposes.

This gifted villain spoke several languages, and never hesitated for a moment to perpetrate a crime, even where there was danger of being detected. In his creed, he seemed to have proscribed all mankind, and was never more in his element than when committing the most revolting crimes. Perjury, poison, and poniards, were instruments always at hand, and he wielded all with equal dexterity. Prompt to execute whatever a vicious fancy suggested as practicable, he never stopped long to consider of the means; whatever was certain of producing the desired effect was chosen in preference, even though attended with the greatest danger to himself. That he displayed considerable tact in selecting his accomplices is evinced by the horrid transactions in the Crawford; and he maintained his ascendancy over them by his fertility in devising expedients to accomplish his atrocities, and his total disregard of danger in carrying them into execution.

Tardy, whose life had been a continued scene of villany, arrived in Havanna in the month of January, 1827, and presented a petition to General Vives, the governor of the island of Cuba, setting forth, that he had come to the island with the intention of settling some old claims; but that, being destitute of funds, he was desirous to obtain permission to clean

teeth, cure the tooth-ach, with certain simples known to him, and to make and insert false teeth." The petition further set forth, that the exercise of these arts would not interfere with the faculties of surgery and medicine already established at Havana. This petition was found among the papers of Tardy, and the permission granted bears date the 24th of January, 1827, and is signed "Vivez." As a dentist Tardy received little encouragement in Havana. Whether his want of success arose from competition, want of skill in his profession, or want of inclination to pursue it, is not known; probably all these causes may have combined, as he is said to have been seen almost constantly lounging in the morning about coffeehouses, and in the evening at places where games of hazard were exhibited. He was, however, never known to indulge himself in the dangerous amusement of gaming, but seemed to attend merely as a spectator, who took delight in viewing the workings of the passions, which operate on the votaries of such recreations.

Near the *Puerta de Tierra*, in Havana, is a range of small shops, known by the name of *Las Barrillas*, which are occupied by venders of second-hand clothes and miscellaneous articles. These retailers are a kind of pawnbrokers, and afford facilities to knights of the pad and other honest people, whose title to the goods they hold rests chiefly on the right of *legerdemain*, to dispose of their moveables. At one of these shops, kept by a man called Blasco, Tardy was frequently seen to enter; and as a faro-bank was exhibited in the house, it was supposed that that circumstance was his principal inducement; but not so—his game was man. Tardy, whose desperate fortune had rendered him desirous to strike some bold stroke by which he could retrieve it, was in search of coadjutors who possessed the dexterity and courage necessary to execute his plan, and in this place he had met a man whom he thought adapted to his purposes.

Among these who resorted to the house of Blasco for the purpose of gratifying their fondness for play, Tardy had ob-

served one, whose manners seemed superior to those with whom he associated, but whose reckless conduct proved him a man of desperate fortunes. This man, as Tardy ascertained upon inquiry, had come to Havanna some years previous, and had been engaged in mercantile business, which his irregular habits had soon compelled him to abandon; that thereupon he had gone to another part of the island, whence he had returned from time to time provided with money, which no one knew how he had acquired; but, from his conversation, it was supposed that he had been engaged in desperate enterprises, and it was generally believed that he had herded with some of the numerous gangs of pirates which frequent the bays and inlets which everywhere indent the coast of the island. No one, however, of those with whom he associated thought proper to scrutinize very rigorously the past conduct of a *camarada de rancho*, who spent his money freely as long as it lasted; and the police of Havanna, proverbially weak, did not choose to molest a spirit, who, with "a soul to dare, a hand to do," would, from a sense of common danger, be backed by companions equally daring. This was precisely such a man as Tardy wanted, and, as there exists a sort of freemasonry among kindred spirits, Felix soon became the inseparable companion of Tardy, and, in the frequent conferences which they had, the plan was laid, which they subsequently carried into execution.

The slave-trade, notwithstanding the execration in which it is held, and the rigorous measures adopted by the United States and most of the powers of Europe for its suppression, is still carried on from some of the West India islands. The immense profits which have been realized by a few adventurers, who have successfully engaged in this inhuman traffic, have raised up others, who have been willing, on account of the gain, to encounter the risks which attend it. Tardy's first proposition to Felix is said to have been, to take a voyage to the coast of Africa, under the belief that they would

find in Havanna some one ready to avail himself of their services, and willing to provide a vessel for the purpose. Felix, whose funds were exhausted, was ripe for any undertaking; but, either from the hazard attending similar enterprises, or from some other cause, they were unable to enlist the co-operation of a man of sufficient capital to fit out a vessel, and, after a month of fruitless exertions, they were compelled to abandon the hope of procuring a vessel in Havanna. Tardy, however, was resolved not to abandon a plan which promised so glorious a result, and proposed to Felix that they should make an effort to obtain a vessel at Matanzas, as their character was already too well known and began to be suspected at Havanna. He recounted so much of his history as he thought sufficient to inspire his companion with confidence in the success of the plan which he proposed, and told him that the Americans, against whom he had conceived the bitterest hatred on account of some fancied injuries and the imprisonment he had suffered in the United States for his crimes, could easily be surprised, and that an American vessel might be taken possession of by poisoning the crew, as he had done on former occasions: That it would be necessary to procure one or two trusty fellows, on whose courage and skill in the use of the poniard they could rely in case of need; and that he would answer for the success of the undertaking. Felix was easily persuaded to make the attempt, and undertook to provide the necessary assistance. Among the acquaintances, which he had acquired in the course of his irregular life, was Jose Casares. He was the son of a fisherman at Havanna, and had early distinguished himself by deeds of daring courage, and was known among the bravos of the suburbs as *Pepe lo Intrepido*. Pepe was a mere map of action, whose fidelity to his employer was like that of the spaniel, and on whose readiness to execute any deed, however atrocious, he might with safety rely.

Felix had had an opportunity of doing this man some ser-

vice, and found no difficulty in return to enlist his services for the contemplated enterprise. Tardy, Felix, and Pepe, having procured the necessary ship's papers from some clerk discarded from the custom-house at Hayanna for misconduct, set out for Matanzas, where they arrived about the 10th of May; and Tardy immediately began to select, among the vessels then in port, one on which he might execute the plan he had devised. The brig Crawford seemed best suited to his purposes, as she was a new vessel, and the indisposition of the captain led him to expect that he might, in his professional character of doctor, gain his confidence, which would greatly facilitate the execution of his scheme. He accordingly applied to Captain Brightman, with whom he had previously become acquainted at a coffeehouse at Matanzas, for passage in his vessel; and the age, manners, and intelligence of Tardy being calculated to inspire confidence, Captain Brightman, who was afflicted with the asthma, availed himself of Tardy's offer to give him medicine to relieve his complaint. Tardy, in the meantime having examined the vessel, and learned from the captain the number of the crew, and that he expected two or three passengers in addition to Casares, Felix, and himself, thought it prudent to procure the services of some additional hand; and having conferred with Felix and Casares on the subject, the latter recommended Morando, whom he had previously known, as a suitable person, and he was accordingly employed. It was agreed that Morando, who had been employed in some menial service at Matanzas, should go aboard in the capacity of Tardy's servant, and that Felix and Pepe should go as cabin passengers. Apprehensive that their appearance might excite suspicion, as they were not very well provided with baggage or clothing, Tardy advised that Felix and Casares should pass for merchants going to New York to buy a vessel to be employed in the African trade; and to render this story probable, a box was procured, filled with iron and lead, which was to be represented as containing 17,000 dollars in

gold. Every thing being arranged, and the Spaniards having procured the necessary passports, they went aboard in the manner told by Dobson ; that is, not all together, but separately, with the twofold object not to excite suspicion, and that, in the event the enterprise failed, they might not all be implicated, and might serve as witnesses for each other. It was the intention of Tardy to take possession of the vessel immediately after her reaching the open ocean, if practicable ; but in this object he was defeated, partly by the vigilance of the cook, and partly by the sickness of his companions, who were not accustomed to the sea. Stephen Gibbs the cook was tenacious of his skill in his profession, and Tardy had in vain endeavoured to gain his good-will by his attentions ; whether he suspected Tardy, or whether he thought himself such an adept in the culinary art as not to need the Frenchman's instructions, or thought it impertinent on his part to interfere with his department, it is certain that he obstinately refused to avail himself of every hint offered by Tardy, and watched his motions with such attention, that the Frenchman thought it prudent to be more circumspect in his conduct. On the third day after their departure from Matanzas, the Spaniards having recovered from the effects of the sea-sickness, were impatient to act, and proposed to make an attack on the crew that very night. This, however, was resisted by Tardy, who insisted on their deferring it until he had tried the effect of some medicines, which he resolved to administer the next morning. He accordingly went on deck early, and having succeeded, unobserved by the cook, to mix some poisonous substance with the chocolate, he proposed to show him how to fry eggs according to the French fashion ; but the cook being as intractable as ever, refused positively to take any instructions, when Tardy very deliberately taking some yellow powder from his pocket, sprinkled it over the eggs, saying that it was a kind of pepper always used in the West Indies, and which would give them a very agreeable flavour. The cook, however, not dis-

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posed to place confidence in Tardy's skill or taste, very deliberately scraped off the powder, without, however, suspecting that it was poison. Tardy, being thus in part foiled in his attempt, watched with anxiety the effects of the poison, and, finding that every one of the crew was more or less affected, resolved to yield to the solicitations of the Spaniards, who were eager to imbrue their hands in blood. Desirous, however, to preserve some one acquainted with navigation, of which he had himself but an imperfect knowledge, and believing that the mate would be more tractable than the captain, it was resolved to spare his life. Tardy had also resolved to save the life of Mr Ginoulhiac, not only because he was a countryman, but because he thought that the Spaniards, being once in possession of the vessel, and being three to one, might not be so amenable to order as they had hitherto been, and that it would be prudent to have the co-operation of some one who would be likely to take his part in case a difference of opinion should arise between himself and the Spaniards. Of this, however, he entertained little apprehension, as he knew his services would be indispensable, not only as interpreter in any foreign port to which they might arrive, but on account of his knowledge of navigation; and as he depended on the known energy of his character to keep them in subjection, it is probable that partiality for his countryman was the strongest motive for his preservation.

It was resolved to make the attack on the morning of the 1st of June. On the evening of the 31st of May, the vessel was to the west of the Little Bahama Bank, and in the vicinity of the Matanilla Reef, which it had not yet cleared. The weather was warm and calm, and the heat of the cabin induced most of the passengers to stay on deck. About 10 o'clock, Mr Robinson and the American and Irish passenger went below. Captain Brightman's indisposition confined him to his birth. The arrangements made in relation to the attack are said to have been these: Tardy was to take possession of the helm, and prevent Ginoulhiac and the mate,

who slept on the quarter-deck, from taking part in the affray. Pepe was to take his station at the companion-way ; Courro at the forecastle, and Felix midships, ready to assist Courro or Pepe, as either might want his services. The disposition of the passengers and crew, at the commencement of the attack, is said to have been this : Captain Brightman, Mr Robinson, and the American and Irish passengers, in the cabin ; Mr Ginoulhiac, Dobson, Nathan, and Dolliver, on deck ; Bicknell, Potter, and the cook, in the forecastle.

Tardy was to give a signal by clapping his hands. This signal was to be made a little after twelve o'clock, and as soon as Tardy had taken the helm. In the mean time the Spaniards went to sleep on deck. Courro was the first to wake, and, perceiving that the night was far advanced, he called up Tardy and the Spaniards ; Tardy then cut the throat of Dolliver, and gave the signal, when the Spaniards set up dreadful cries, which roused every body, and as any one came up, either from the cabin or forecastle, he was immediately stabbed. The American carpenter was the first to make his way from the cabin, and was stabbed by Pepe ; but the blow not proving mortal, a struggle ensued, which lasted but a short time, when he fell and was despatched by an axe. During the continuance of this struggle, Captain Brightman rushed on deck, and received a blow from Felix which laid him prostrate. Felix seemed to possess such skill in the use of his weapon, that it was admitted he never gave but one blow. The Irish passenger met the same fate, and Robinson is supposed to have thrown himself from the cabin windows into the ocean upon seeing the death of the Irishman. Courro was equally successful at the forecastle, and stabbed successively Potter, Gibbs, and Bicknell ; Nathan, who slept on deck, was not discovered in the darkness, and threw himself overboard without being wounded.

The Trial before Chief Justice Marshall at Richmond, Virginia, 16th July, 1827; reported by a Member of the Bar.

The prisoners having requested to be tried separately, the venire (*de medietate linguæ*) was called, and *Pepe*, alias *Jose Hilario Casares*, was first put upon his trial. Each juror was sworn to answer questions, and examined by Mr Leigh for the purpose of ascertaining whether he was prejudiced against the accused.

The witnesses were then called; and, first,

Edmund Dobson, who carried his left arm in a sling, was about five feet six inches high, well-made, had fair complexion, light hair and eyes, and an open and engaging countenance, declared, That he sailed from Providence, Rhode Island, as mate of the brig *Crawford*, about the 6th of April, 1827; that the said brig, which was loaded with a general cargo of American produce, was bound for Matanzas, in the Island of Cuba, and, besides Henry Brightman, who was captain of the vessel, was manned by the following crew, viz. Joseph Dolliver, Oliver Potter, Asa Bicknell, Nathaniel P. Deane, and Stephen Gibbs, a coloured man, who was cook; that the vessel was built at Troy, in Massachusetts, where he had assisted in rigging her; that she was first registered at Deighton, and shortly before her last, which was her second voyage, at Providence; that, after arriving at Matanzas, they took in a cargo of molasses, coffee, and sugar, to be delivered in New York.

While they were loading at Matanzas, and about eight or ten days before they were ready to sail, Captain Brightman informed him that he expected some passengers, and upon inquiry stated, that he believed two or three were Spaniards and one was a Frenchman. A few days afterwards, Tardy, who assumed the title of doctor, came on board, entered into conversation with the captain, whom he proposed to furnish with medicine to cure the asthma, with which he was dreadfully afflicted. Tardy remained in the vessel that night, and,

on his return to shore in the morning, sent the captain three phials containing some medicine, which he used, and thought beneficial. About three days before the departure from Matanzas, Felix and Courro came on board the vessel in the evening, carrying a small iron-bound box, which was very heavy, and which they said contained 17,000 dollars. They also stated, that they had great difficulty, and were compelled to use many precautions in bringing it to the vessel, as the police of the city was constantly on the alert, for the purpose of detecting specie, the exportation of which was prohibited. Felix seemed particularly anxious that the box should be put in some safe place, where it might not be found, should the vessel be searched, and accompanied the witness, who by direction put it in a locker under the birth in which the captain slept, with which disposition of it he seemed perfectly satisfied. Felix continued on board from this moment until the vessel sailed, and was continually about the cabin, as if anxious to watch the spot which contained his pretended treasure. Courro also continued in the vessel, but as he was steerage passenger, he confined himself to the forecabin. On Saturday the 26th of May, in the morning, Tardy and Pepe came on board, and in the evening of the same day Mr Ginoulhiac arrived. They expected to leave Matanzas that day, but the mercantile house to which they were consigned having failed to procure the necessary documents, their departure was delayed. The vessel was hauled out from the shipping on Sunday, and sailed on Monday the 28th of May. When the brig left the port there were aboard the following passengers, viz.—Alexander Tardy, Ferdinand Ginoulhiac, Felix Barbeito, Jose Hilario Casares, Jose Morando, an American, and an Irish carpenter, names not known, and Mr Norman Robinson, who was part owner of the cargo. The three Spaniards, Casares, Morando, and Barbeito, designated each other familiarly by the appellations of Pepe, Courro, and Felix, and seemed acquainted with each other, and with Tardy. The brig proceeded on the voyage with variable

winds until the 30th of June, when, from an observation taken, they found themselves in latitude 27 degrees 41 minutes N. and longitude 79 degrees W. On the morning of the 31st of May, the wind being light, and the weather fair, the witness sat down to breakfast on deck with Tardy and the other cabin passengers. Captain Brightman was indisposed and confined to his birth. During breakfast Tardy acted as master of ceremonies, and helped the witness to bacon, fried eggs, and a bowl of chocolate; in handing the latter to the witness a portion of it was spilt, which Tardy, with officious politeness; insisted on replenishing, and was permitted to do, the act at the time being regarded as a civility, and exciting no suspicion. After breakfast, witness descended into the cabin for the purpose of taking some repose, as the sickness of the captain had compelled him to spend the preceding night on deck. He had hardly reclined on his bed for this purpose, when he was attacked with a violent headache, throbbing about the temples, and sickness of the stomach.— Unable to account for this sudden indisposition, he sent for Tardy, who, having felt his pulse, and inquired into the symptoms of the disease, declared that he had bile on the stomach, and recommended an emetic. Mr Robinson, who in the mean time had descended into the cabin, and overheard Tardy's prescription, dissuaded him from taking an emetic, at least then, and advised him to seek repose, to which he consented; but, finding the heat of the cabin oppressive, he had his mattress brought on deck, notwithstanding the remonstrances of Captain Brightman, who expressed great apprehension, that his own indisposition and that of the witness would prevent the vessel from being properly managed.

On deck, his sickness, attended with constant vomiting, continued throughout the day, and it was not until 8 o'clock in the evening that he felt somewhat relieved. During the day he had a conversation with Mr Robinson, who communicated his fear that an attempt had been made by the Spaniards to poison them, as the whole crew seemed to be sick,

and who proposed, that, to guard against any thing of this kind for the future, their own cook should prepare food for the crew and the other passengers, while Courto, who was the servant of Felix and Tardy, might act as cook for the Spaniards. So vague, however, were these suspicions, that the witness had resolved to take Tardy's medicine the next morning if he did not feel better. In the mean time the witness continued on deck and obtained some repose. At 12 o'clock, when it was his duty to take charge of the watch on deck, he was called up; but the night being calm, and the vessel making but little way through the water, he did not think it necessary to turn out. Dolliver, who had at this time taken the helm, was directed to wake him should a breeze spring up, or any thing occur which would make it necessary to change the course of the vessel; and thereupon, having adjusted his mattress on the starboard side of the quarter-deck, between the hen-coop and a water-cask, he fell asleep. His sleep had continued, as he supposed, about an hour and a half, when he was waked by dreadful shrieks proceeding from various parts of the vessel. Apprehensive that they had been attacked by pirates, as they were yet in the Gulf, he inquired what was the matter, started up and ran forward. At the fore-castle he saw a man standing, who held a knife in his hand, which was raised; as he approached, the man assumed the attitude of striking, and on turning to avoid the blow, he received a stab in the left shoulder. This man was Pepe. Hastening across the deck, he saw a man, whom he supposed to be the captain, leaning against the side; he called to him, but received no answer. Approaching the main rigging, he beheld Potter supporting himself by the railing, with his hands before his stomach, mourning piteously. As he recognised the witness, he inquired if they could get nothing to defend themselves with. Witness seized a handspike, which was taken possession of by Potter. They then ascended the main shrouds, whither Dolliver had already retreated; and as the witness was going aloft, the blood of

his fellow-sufferers, which descended in a shower upon his head, inspired him with such horror that he was almost incapable of advancing. On reaching the cross-trees, Potter fainted, and would have fallen had it not been prevented by the exertions of himself and Dolliver, who was also badly wounded, and declared, when called upon to assist Potter, that he was hardly able to support himself. In the mean time, Potter, reclining on the breast of the witness, recovered, and declared that he must die, as his intestines protruded through the wound; seemed much affected, and spoke of his mother and sisters, whose fate, when deprived of his support, he deplored. He proposed, as an act of safety, to cut away the rigging; but this the witness opposed, not only because they had no instrument with which to effect it except a jack-knife, but because such an act would exasperate their enemies, who were on deck and possessed fire-arms, which might be used for their destruction. Potter, however, was resolved to cut the rigging, and having got possession of the knife, began to cut the ballyards. Dolliver being asked by the witness, Who took the helm from him,—related, that about half after one Tandy came on deck, looked into the binnacle, and asked him how he was steering; that on stooping down to ascertain the course with more precision, he received, in rapid succession, two cuts across the throat, and immediately fled to the rigging. While remaining at the mast-head, witness heard something thrown into the water, and supposed at the time that two dead bodies were thrown overboard. Witness also heard the voices of two men swimming in the water, and recognised them to be Nathan and Mr Robinson. Nathan approached the vessel, and entreated that a barrel, a plank, oar, or something might be thrown out to support him, as he was ready to sink. His entreaties, which were addressed to the Spaniards in broken Spanish, were either unheeded or answered with threats. Mr Robinson, who had kept further off from the vessel than Nathan, now swam to the side, and addressed himself to the men aboard. As he spoke in Spanish, witness could not un-

derstand what he said ; but, from hearing the term barrel frequently repeated, he supposes that the import of his conversation was similar to that which he had previously heard from Nathan. At one time the Spaniards seemed willing to grant his request ; but when he approached, they seized the greins, (an instrument resembling a harpoon), and stood prepared to strike him. As the night was calm, the sky clear, and the stars shone with great brilliancy, the witness was able to distinguish conspicuous objects on deck, and especially the Spaniards, who were calling to each other, and were in constant motion. In the meantime the vessel was carried gently along by the gulf-stream, and the voices of Nathan and Robinson, which became fainter and fainter, died away. Tardy then called out in a loud voice, " Mr Dobson, where are you ?" Witness replied, " In the maintop." Tardy again asked, " Are you wounded ?" and being answered " Yes," requested him to come down. Witness refused ; but, upon repeated assurances from Tardy, that if he came down his life should be spared, he descended, notwithstanding the remonstrances of his companions, who implored him as he valued his life to remain where he was. When he reached deck, he was immediately surrounded by the three Spaniards, and some time afterwards Tardy approached him. Tardy began to question him about the box which Felix had brought aboard, and what had become of it. Witness replied, that he had seen the box, and put it in the captain's state-room, but could not tell what had become of it. Tardy then explained to him, that the Spaniards had applied to the captain for the box, and upon his refusal to give it up, they, believing that he had put it ashore at Matanzas, had resolved, instead of going to the United States to seek a precarious redress from the laws, to take the law in their own hands, and had accordingly killed the captain and taken possession of the vessel : That, as the deed was now done, it would be useless to go to the United States, and they had determined to sail

for Europe, and, if the witness would assist them, they would not only save his life, but he should be well paid for his services when the cargo was disposed of.

The Spaniards accompanied this explanation with curses against Captain Brightman ; and the witness having consented to do whatever was asked, obtained permission to lie down. He retreated to the quarter-deck, where he threw himself on a mattress, faint from the loss of blood, and greatly agitated by the scenes which he had witnessed. Tardy again accosted him to know who was at the maintop, and having been told that Dolliver and Potter were there, they were called, and requested to come down separately. At first they refused ; but finally, upon repeated assurances from Tardy that no harm should befall them, Dolliver came down ; but hardly had his foot touched deck before he was stabbed by Courro, and pushed overboard by Pepe. On falling in the water, Dolliver still retained life, and addressing himself to Potter, told him to die where he was, and not to come down, for if he did he would certainly be killed. He then addressed himself to the Spaniards, and called them barbarous and blood-thirsty wretches, equally destitute of courage and humanity. His voice was soon silenced by the waves. Shortly afterwards Potter fell from the rigging, and as he struck the ocean in a heavy manner, and no struggle was heard, witness supposed that he had either fainted or was dead. By this time day began to dawn, and he saw Pepe and Courro come on deck with two muskets, which they loaded in sight of the witness, who believed that it was their intention to shoot the cook, who had fled to the foretopmast, where he had concealed himself in the sail. He saw them advance to the forecastle, and call up some one from below, whom he recognised to be Asa Bicknell. This poor fellow seemed wounded, and writhing with agony, a bandage surrounded his body, and he was either ordered to throw, or threw himself voluntarily overboard, and in the act of falling was shot at by Courro, whether with or

without effect he cannot tell ; but when in the water Pepe discharged his piece at him, and, from the shriek which followed, he supposes that it took effect.

The Spaniards now approached the quarter-deck, and, as it was day, he could distinctly perceive that two of them had nothing on but their trowsers, confined with handkerchiefs, tied around the waist ; the third had on, in addition to his trowsers, a Guernsey frock. Each of them was armed with a long sharp-pointed knife, confined to the side by the handkerchief. Their hands and clothes were besmeared with blood, and their appearance hideous. One of them descended into the cabin with a rope, and, having fastened it to something, Pepe drew it on deck. It was a dead body, and by the bend of one of the legs, he recognised it as the body of the Irish carpenter, who had broken his leg, which, from having been improperly set, was crooked. The body was thrown overboard, and then the cook was called. After repeated assurances of safety, he came down, and was ordered to go to work and cook breakfast. The Spaniards having thus completed the work of destruction, set up loud cries of exultation, and, intoxicated with their success, walked about the deck, which, as well as the sails and rigging, was every where died with blood. They occasionally resorted to a bottle of liquor, placed on the hen-coop. Tardy remarked to the witness at the time, that Spaniards could drink a great deal ; that these men had been drinking all night without being sensibly affected by it, and that it was unusual to see a Spaniard drunk. They then set about cleaning the deck, and seemed anxious to remove every trace of the murders they had committed. The deck and rigging were washed, and the sails painted to conceal the blood with which they were stained. Tardy, taking compassion on the situation of the witness, sent to the cabin for the medicine-chest, and applied himself to dress his wounds. Perceiving that the witness was greatly alarmed, he endeavoured to sooth him ; he represented his wound as a mere scratch, and said he could show fifty

scars from wounds more dangerous. He also assured the witness, that if he would remain in the vessel and assist them, his life should be as safe as his own; that he ought not to be afraid of the Spaniards, who were mere brutes, as he knew how to govern them. Witness asked to be brought into the cabin, and when raised for that purpose, he fainted. How long he remained in this situation he does not know; recollects that he was roused by some noise, and on opening his eyes, saw Felix in the act of breaking open his chest. He pointed out by signs the place in which he would find the key; saw him open the chest, and take out a pocket-book (which was now in Court) containing a three-dollar bank-note, and about two dollars in small change. He took also twenty-five dollars in silver, and some articles of clothing. In the course of the day all the papers belonging to the brig were torn up and thrown overboard; all the trunks and chests which belonged to the passengers and crew were overhauled, and, after such articles as pleased the Spaniards were taken out, thrown overboard. The American flag was destroyed, and materials were produced for making a Spanish flag, which Mr Ginoulhiac was required to put together. Tardy then informed the witness that he intended to go to Hamburg, and that he was provided with papers for such a voyage. He said that he had purchased these papers in Havanna; that they cost him nine doubloons, and that before he sailed for Europe, he wished to put in at some port to procure fresh provisions, and ship a crew, as the Spaniards were no sailors. At his request, witness informed him how to steer for St Mary's. In the course of the day he saw the Spanish papers, which are the same exhibited in Court, and heard Tardy say, that if the officer from whom he procured them were known to the government in Havanna, he would lose his place. Had conversations with Tardy about the manner of managing the vessel; from which he discovered that he knew very little about seamanship. Felix was the next in command, and was the only one of the Spaniards who knew how

to steer. It seemed to be the wish of Felix to sooth his fears, and he made him understand that he had nothing to apprehend; and that, if he assisted them, he should, on their arrival in Europe, share equally with Tardy and himself; that as to the other Spaniards, they would give them very little. Witness endeavoured to make himself useful by showing them how to keep the log-book, which they had begun in Spanish; he also gave directions how to steer and manage the sails. Indeed, such was his alarm for his own safety from what he had seen of the Spaniards, that he would have done any thing they ordered, even had it been to sink the vessel or throw himself overboard. Contrary winds prevented their entering at St Mary's, and after cruising off the mouth of that river for two days, witness proposed that they should go to Savannah; to this Tardy objected, as he said he was known there. Witness then proposed Charleston, and said, if he would sail to that place, he could take him over the bar without a pilot. But this he also refused, saying that he was too well known in Charleston, as he had lived there, and failed in business.

It was finally resolved to go to Norfolk, and they accordingly shaped their course for the Capes of Virginia. Tardy proposed that they should anchor in the Chesapeake, and remain there while he went to Norfolk and procured hands and provisions. This the witness opposed, alleging that he was afraid of the Spaniards, who, when not restrained by the presence of Tardy, would probably take his life. Tardy endeavoured to remove his fears by saying, that if they did he would sink both them and the vessel; that he would tell them so; and that when he went to Norfolk he would buy him a pair of pistols. A list of the articles to be bought were made out by the Spaniards, including wines of different kinds, poultry, pickle, clothing, &c. but particularly some good knives. It was calculated that these articles would cost upwards of three hundred dollars, and Tardy said that, unknown to the Spaniards, he had added fifty dollars to buy pistols for him-

self and the witness. When they arrived at the Capes, they were spoken successively by three pilot-boats. Tardy answered their hail by saying that it was a Spanish vessel coming from Matanzas and bound to Hamburg, and refused to take a pilot, pretending that he had no occasion, as he was well acquainted with the bay.

Tardy in the mean time addressed himself to the witness, and told him that he had saved his life; that the least hint from him to the Spaniards would have caused his destruction; and asked if he could depend on his silence. That, in reply to this, witness assured him that he could, and said every thing he thought calculated to inspire confidence. Tardy seemed satisfied, and told the witness how to act should a pilot come aboard. He told him to be silent, or, if he attempted to speak, to use some Spanish expression, as *senor*, *usted*, &c.; that he would call him Smith, to which name he must answer, and that he would occasionally seem angry, to lull suspicion.

They were again hailed by a pilot-boat, and Tardy again refused to take a pilot. Not having understood the answer, a pilot came alongside the brig, and witness having persuaded Tardy that his refusal might excite suspicion, especially as the name of the vessel was not on the stern, he consented to take a pilot. Witness thought of availing himself of this opportunity of escaping, by leaping into the small boat which brought the pilot; but, apprehensive that the representations of Tardy would induce the pilot to think that he was either mutinous or deranged, and expecting that a better opportunity would offer, he resisted the temptation. Tardy entered into conversation with the pilot, and told him that he was going to Norfolk to lay in provision and ship hands; that he had been boarded by a Spanish frigate, which had carried off four of his best hands; that those who remained were no sailors except Smith, who was at the helm, and who was an Englishman by birth, but had lived for many years in Spain, and spoke only Spanish.

Some conversation also ensued in relation to a little dog, which the pilot asked Tardy to give him, and which he refused, saying that it belonged to Smith. Witness then told the pilot in English, that he could not give him the dog; upon which the pilot remarked, that he thought from his appearance that he was an American or Englishman, and no Spaniard. This conversation excited Tardy's suspicions, and he afterwards watched him so closely, that he had no opportunity of speaking to the pilot. About six o'clock in the evening on the 12th of June they came to anchor at Old Point Comfort, about a hundred yards from shore; and while the Spaniards and the cook went aloft to furl the sails, Tardy prepared to go ashore. He again addressed himself to witness, and asked him if he could depend on his fidelity, and offered to purchase any thing he wanted, and also give him one hundred dollars. Witness refused the money, asked him not to forget to buy him a pair of pistols, and persuaded him that he was perfectly contented, and would not betray him. He offered to prepare the boat, but Tardy told him not to take the trouble, as the men would shortly be down. He then offered to remove the water with which the boat was filled, which he was permitted to do, and while thus employed, a small boat, rowed by two black men, passed the vessel. In this boat was a white person, who accosted Tardy either in French or Spanish. By this time the men aloft having furled the sails, were about to come down; and the witness apprizing Tardy of this, told him that if he would lower the boat and hand him an oar, the witness would bring it to the side. Seeing the men in the act of descending, Tardy and Mr Ginoulhiac lowered the boat, and as soon as he had unhooked the tackles and gotten an oar, he sculled towards shore. When Tardy saw that he was not coming alongside, he said, "Mr Dobson, are you going to betray me?" The witness answered "No;" and this was the last word he spoke to Tardy. As soon as he got ashore, he communicated the occurrences on board the brig to the offi-

cers at Fortress Monroe, who took possession of the vessel. At Norfolk, had a survey of the vessel, and found in the chests of the Spaniards some articles of clothing, which had belonged to the crew and Mr Robinson, and the log-book kept by Tardy in Spanish. (These articles were exhibited in Court.)

The style in which the preceding narrative was told was plain and unaffected; the witness seemed subdued by sorrow and suffering, and though his tone was firm, it was apparent that no angry emotions had influenced him to give an exaggerated account of what he had seen. The sympathy of the audience was deeply enlisted; a profound silence was preserved throughout the whole narration; and when it terminated, there did not appear a man present who was not convinced of its truth. Even the counsel for the prisoners seemed to think it impossible to impeach the veracity of the witness; and their cross-examination, conducted with a view to discover contradictions, tended only more fully to show that the transactions were too indelibly impressed on his mind to permit them to elicit any thing but what would confirm his statement.

The witness candidly admitted, that many circumstances, which had made a strong impression upon him at the time when they occurred, were, owing to the anxieties he had since experienced, effaced from his recollection.

Mr *Ferdinand Ginoulhiac*, who had been previously sworn, was then called. He was about six feet in height, with fair complexion, blue eyes, brown hair, well-made, remarkably erect in his carriage, and of prepossessing appearance. Being unacquainted with the English language, Mr Crozet interpreted his testimony, which was to the following effect:—

That he was a native of St Hipolyte, a town in Languedoc, in France, and had resided in the island of Cuba seven years, some part of which he had spent in the interior, but had lived for the three last years in the town of Matanzas,

where he kept a retail store. That being desirous to go to the city of New York for commercial purposes, he procured, through the agency of Mr Howland, an American merchant at Matanzas, a passage in the brig Crawford, and went, accompanied by Mr Robinson, aboard the vessel on the 26th of May. That he found Tardy, three Spaniards, called Pepe, Courro, and Felix, and two persons who spoke English, already aboard, and occupying the cabin as passengers. That during the first days of the voyage, which began on the 28th of May, he was sea-sick and stayed on deck, and had occasional conversations with the Spaniards and Tardy, neither of whom, he thinks, he had ever seen before, and observed nothing in their conduct which gave rise to suspicion. He observed on the 31st of May, that immediately after breakfast, which consisted of chocolate, fried eggs and bacon, almost every person on board was taken sick and vomited, and the mate seemed more affected than the rest, and continued vomiting throughout the day; he thought it arose from sea-sickness, and it excited his surprise, that persons accustomed to the sea should be thus affected. On the evening of the 31st he spread his mattress on the quarter-deck, on the starboard side, near the helm, and slept, as he supposed, till between two and three in the morning, when he was aroused by dreadful cries, which made him start on his feet. He found Tardy at the helm, and asked him what was the matter. Tardy seized him by the arm, and told him to be still and remain where he was, and no harm would befall him. While standing near Tardy, he saw, at the distance of two or three yards, two men struggling, one of whom fell, and the remaining one he recognized to be Pepe, whom he heard afterwards exclaim, "Hah, not yet dead!" and then beat the body of the man who had fallen, with some instrument, which he supposed to be an axe, and threw it overboard. He heard Nathan and Robinson in the water, and their conversation with the Spaniards; saw Courro stab Dolliver, and Pepe push him overboard; heard Felix and Pepe ask

Courro why he delayed to strike Dolliver, and his reply, which was, that he wished to give a handsome blow, (*primada hermosa*.) Heard Potter fall from the mast-head, and saw Bicknell shot.

[The witness related the preceding occurrences nearly in the same manner in which they had been previously told by Dobson. There were some slight variations in the circumstances, arising probably from difference of situation; for, on the whole, there was a most remarkable coincidence, considering that the witness did not understand English, and that as he did not know the names of the sailors, he had to describe their appearance, which corresponded with the previous descriptions of the mate.]

The witness proceeded to state, that he saw Felix standing near the stairs leading to the cabin, and strike at some one who was in the act of coming up; and that he afterwards heard Felix declare, that he thought it was Robinson coming up with a gun, which he seized with one hand, while he stabbed him with the other. He also saw the dead body hauled from the cabin, and recognised it as the body of the passenger who had a crooked leg. Felix seemed to examine the wound with great triumph, and exclaimed, that it was the best blow he ever struck in his life,—it had exactly divided the heart! Pepe and Courro, who were present, admitted that it was the handsomest stab they had ever seen. Heard the cook called down; he went to clean the deck. The Spaniards showed the most extravagant joy at the success of their enterprise, and, in striding the deck to and fro, had the appearance of demons rather than men. Each contended for the honour of having done the greatest execution. Felix asserted that he had killed the captain and Mr Robinson, which Pepe denied, alleging that he had killed the captain. Some altercation ensued, in which each endeavoured to convince the other, and Pepe seemed at last to concede that Felix had killed the captain, while he killed the American carpenter. Courro also claimed merit on the score of having stabbed the greatest number, but this claim Pepe denied.

Then turning to Tardy, they upbraided him for not having procured such knives as they had directed, saying that those which he had given them were all broken, and that if any thing were now to happen, they would be unable to defend themselves. Tardy promised to procure them knives at the first place where he could get ashore. Tardy, who had been by the side of the witness during these occurrences, and perceived that he was terrified, told him not to be afraid, that he would protect him. He said that he had been a pirate for many years, but that he had never yet taken the life of a countryman, and that he was now too old to begin ; that he would set him ashore at St Mary's, and give him fifty dollars, which, with economy, would enable him to make his way to New York. That this was all he could do for him, as he was afraid of the Spaniards. From the conversations of the Spaniards during the voyage, he discovered their determination to destroy the cook. That when he remonstrated with Tardy on the unnecessary cruelty of such conduct, he received for answer, that it was not in his power to protect him, as he had already rendered himself suspected by preserving two lives, and that he must let the Spaniards work their will upon the negro. He then entered into conversation with Felix, and told him that he had always admired the Spaniards, that they were bold and courageous in action, but that he had never known them commit murder in cold blood ; that, on the contrary, he thought they took delight in showing humanity. He said that the cook was already wounded ; that there was nothing to apprehend from him, and that he would be very useful. Pepe and Courro joined them during the conversation, and his sentiments seemed to gain the approbation of all except Courro, who insisted that the cook was dangerous and ought to be killed. It was, however, resolved to spare him for the present. He saw the papers belonging to the vessel destroyed, and Spanish papers substituted, which Tardy said had cost him twenty-five doubloons in Havanna. He one day, when at the table with the Spaniards, heard them observe that some

persons eat as if unconscious that they were only fattening to be killed; and, thinking that this remark applied to himself as well as to Dobson and the cook, he communicated it to Tardy, who told him to be under no apprehension, for if they dared to hurt him, he would destroy both them and the vessel.

The witness then gave an account of the occurrences in the Chesapeake Bay, and at the mate's departure, in every particular conforming to that given by Dobson, except the conversations with the pilot, which he had not understood; and then related, that as soon as Tardy saw the mate on shore he exclaimed, "We are all lost,—he is going to betray us!" The Spaniards then left the vessel in a boat, borrowed from a schooner which had anchored a short distance from the brig, and Tardy giving up every thing for lost, said that he had resolved not to be taken alive, and would cut his throat. Tardy then went into the cabin, and witness followed for the purpose of taking some clothes. He saw Tardy with a small trunk filled with silver dollars, and as his deportment was calm, he supposed that he had no intention of destroying himself. He therefore returned on deck, and was shortly afterwards told by the cook that Tardy had cut his throat; he descended immediately to the cabin, where he found Tardy seated with his throat cut from ear to ear, and though still warm, he was speechless, and life seemed extinct.

Upon cross-examination but few additional facts were disclosed. Mr *Dobson*, who was again called, exonerated the witness from any participation in the crimes of the Spaniards, and stated, that when Courro and Pepe murdered Dolliver, he saw the greatest terror depicted in the countenance of Grinoulhiac, who was standing by his side; and he heard him speak to Tardy, who seemed to sooth his fears.

Joseph Brough, a youth about 18 or 19, was the pilot who conducted the vessel to Old Point. His account of the events which occurred before Dobson's departure corresponded with that already detailed. After the Spaniards had taken their departure in a boat borrowed from a vessel bound

for Martinique, witness descended into the cabin, and Tardy came down likewise. He seemed busy counting money which he had in a trunk, and appeared to be preparing to go ashore. He sent the witness on deck under pretence that he heard the boat coming. Witness immediately returned, and as he went down, heard some noise resembling that made by pouring water. In the cabin he found Tardy with his throat cut, and the blood gushing with great violence from the wound. Greatly alarmed, he rushed on deck, and, seeing the boat from Old Point approaching, asked the officers, for Heaven's sake, to come on board.

Captain *N. G. Dana*, of the United States army, who commanded a company, ordered to guard the prisoners at work on the fortifications at Old Point Comfort, explained, that some time between the 10th and 15th of June, he observed a brig come in and cast anchor, and, believing it to be a lime-vessel, he took no further notice of it. That afterwards it was reported to him, that a sailor had landed from this vessel, who represented it as an American vessel in possession of Spaniards, who had murdered the crew. Having ordered the man to be brought before him, Dobson came, and narrated to him substantially what he has this day given in evidence; but that the story seemed to him so improbable, that it was not till after he had satisfied himself that Dobson was acquainted with Troy, where he said the vessel was built, that he felt willing to assume the responsibility of going aboard, and when he resolved to do so, he ordered the mate to be taken into custody. Accompanied by Lieutenant Robert Anderson and eight men, he proceeded towards the vessel, going around her stern, from which the name had been effaced, as had been previously told him by Dobson. Before the boat reached the brig, they were called by the pilot, who seemed frightened, and asked them for Heaven's sake to come aboard, for the captain had just cut his throat. They took possession of the vessel without resistance, and found Mr Ginoulhiac and a coloured man aboard. On descending into the cabin, saw Tardy seated with a trunk con-

taining silver dollars by his side, and his throat cut; and as the body retained some warmth, the boat was sent ashore for a physician; but when Dr Archer arrived he declared that the work was so effectually done, that his services were unavailing. A guard was then placed at the cabin, and the custom-house officer of Hampton sent for, who, as soon as he arrived, took charge of the vessel. The mate, cook, and Mr Ginoulhiac, were, at the request of the witness, left in his charge for the night, as they expressed aversion to remain in the brig; and, as far as he recollects, the account which Mr Dobson and Mr Ginoulhiac then gave was similar to what they have this day given.

A number of other witnesses were examined, who corroborated the foregoing evidence. The jury retired, and, after an absence of a few minutes, returned with a verdict of *guilty*. The verdict was explained to the prisoner, who seemed unmoved.

On 17th July, *Felix Barbeito* was tried and found guilty; and on 18th July, *Courro*, or *Jose Morando*, was tried and found guilty. They were ordered for execution on Friday, 17th August, 1827. Felix and Courro seemed affected by their sentence, but Pepe remained unmoved. Before execution they all admitted that they were guilty of the crimes laid to their charge, and expressed penitence.

A Report submitted to the Phrenological Society of the City of Washington, on the 14th of March, 1828, and printed by Order.

At a meeting of the Phrenological Society of Washington City, held at the Medical College, on the 14th of March, 1828, Doctor Brereton, from the committee appointed for that purpose, submitted the following report, which was adopted —

MR PRESIDENT,—The committee appointed by the Society at its meeting on the 14th of August last, beg leave to report, That they have delayed reporting on the subject referred to them, from an expectation of almost daily receiving

from Richmond, the manuscript, containing a detail of the histories or lives of the executed criminals, the associates of Tardy, written by one at the dictation of the others. Had it been received, the committee deemed that a general report of the whole would have been more satisfactory to the Society than the single one that is now presented.

As a preliminary, it is thought expedient, that the following correspondence and facts be exhibited, to show the authenticity of the cast which is now before you. Soon after the fate of Tardy was known, one of the committee addressed a letter to Surgeon Everett, stationed at Fortress Monroe, requesting his assistance in procuring the cranium : to which he returned the following answer :—

Fortress Monroe, June 29th, 1857.

DEAR SIR,—Your letter requesting the cranium of Tardy is received. It will be forwarded as soon as circumstances permit ; of which notice will be given. Yours truly,

J. EVERETT,

Joe. Lovell, M. D. Surg. Gen'l.

Surgeon U. S. Army.

A short time afterwards reports reached us of a nature that would lead us to fear a disappointment : under this impression another letter was written to Doctor Everett, for more correct information. The following is his reply :—

Fortress Monroe, July 31st, 1857.

DEAR SIR,—I am happy in being able to state in reply to your note of the 24th instant, that the report of the newspapers in relation to the decapitation, &c. of Tardy, is no more to be credited than the various statements in matters of fact and opinion with which their columns generally abound.

The report alluded to originated from some loose 'camp stories' in circulation here, and the fact that a similar request to that made by you was preferred by some gentlemen of Baltimore, curious in that way, to Dr Archer, but not before the head of Tardy was in my possession.

As to any mistake about the *person* from whom the head was taken you may rest perfectly satisfied. I knew Tardy when alive,—I knew him and carefully examined him when

dead,—saw him buried, which was more than, a mile from that of any other dead body. There can therefore be no mistake upon the subject. Very truly yours,

Dr J. Lovell, Washington City.

J. EVERETT.

On the 1st of August, 1827, the secretary of the navy, together with a large company, in which was one of your committee, left this city to visit the line of battle-ship, North Carolina, Commodore Rogers, then but just arrived at Norfolk, Virginia, from the Mediterranean. While at Fortress Monroe, Doctor Everett had completed the preparation of the cranium, and handed it over to him. On his return, during the succeeding week, he presented it to the Society, who directed casts to be made from it. The casts have since been compared, examined, and measured, and have been found to agree accurately in every particular with the original; and this now before you is one of the number so ordered.

DEVELOPMENT* OF ALEXANDER TARDY.

PROFENSITIES.

1. Amativeness, very large.
2. Philoprogenitiveness, large.
3. Concentrativeness, full.
4. Adhesiveness, moderate.
5. Combativeness, large.
6. Destructiveness, very large.
7. Constructiveness, moderate.
8. Acquisitiveness, large.
9. Secretiveness, very large.

SENTIMENTS.

10. Self-esteem, large.
11. Love of Approbation, full.
12. Cautiousness, full.
13. Benevolence, full.
14. Veneration, small.
15. Hope, small.
16. Ideality, full.
17. Conscientiousness, small.
18. Firmness, large.

INTELLECT.

19. Upper Individuality, moderate.
19. Lower ditto, full.
20. Form, unascertained.
21. Size, ditto.
22. Weight, ditto.
23. Colouring, very small.
24. Locality, full.
25. Order, moderate.
26. Time, moderate.
27. Number, rather full.
28. Tune, full.
29. Language, unascertained.
30. Comparison, full.
31. Causality, moderate.
32. Wit, rather full.
33. Imitation, moderate.
34. Wonder, full.

The head is large, broad, and flat at the vertex, which gives it a low forehead; a large preponderance of measurement behind the meatus. It forms a striking similarity with the heads of Vitellus and Pope Alexander VI.

* As values appear to be attached to the terms in America somewhat different from those attached to them here, we have given this development in our own terms. We have made no change, however, on the American statement of the other developments.

MEASUREMENT OF THE CRANIUM.

	Ins.	10ths.
From Occip. Spine to Lower Individuality,	7	1
— — — to Ear,	4	5
— Ear or Meatus to Lower Individuality,	4	3
— — — to Firmness,	5	3
— Destructiveness to Destructiveness,	6	2
— Cautionness to Cautionness,	5	2
— Ideality to Ideality,	5	0

COMPARATIVE MEASUREMENT.

	Occip. Spine to Lower Individuality.	Occip. Spine to Ear.	Ear to Lower Individuality.	Ear to Firmness.	Destructiveness to Destructiveness.	Cautionness to Cautionness.	Ideality to Ideality.	
American,	7.7	4.4	5.1	5.7	6.0	5.7	5.7	From Combe's Table.
Scotch,	7.5	4.3 $\frac{1}{2}$	4.9 $\frac{1}{2}$	5.9	5.8	5.7	5.1 $\frac{1}{2}$	
Tardy,	7.5	4.9	4.7	5.7	6.6	5.6	5.4	

As the above measurements of the American and Scotch were taken over the integuments, two-tenths of an inch have been allowed to each point of the callipers for the same on Tardy's cranium. It is deemed a very small allowance.

Measurements of the Skulls of Criminals executed for Murder.

	From Meatus to Philoprogenitiveness.	From Meatus to Lower Individuality.	From Destructiveness to Destructiveness.	From Cautionness to Cautionness.	From Ideality to Ideality.	
1. Matthew Osborne	5	4	5 $\frac{1}{2}$	5 $\frac{1}{2}$	4	From the Phrenological Journal, vol. i. page 119. For Bellingham, see Transactions, page 339.
2. Bridget Buttery	4 $\frac{1}{2}$	4	5 $\frac{1}{2}$	5 $\frac{1}{2}$	4 $\frac{1}{2}$	
3. Bridget Ennis	4 $\frac{1}{2}$	4 $\frac{1}{2}$	5 $\frac{1}{2}$	5 $\frac{1}{2}$	4 $\frac{1}{2}$	
4. James Gordon	4 $\frac{1}{2}$	4 $\frac{1}{2}$	5 $\frac{1}{2}$	5 $\frac{1}{2}$	4 $\frac{1}{2}$	
5. John Bellingham	4 $\frac{1}{2}$	4 $\frac{1}{2}$	5 $\frac{1}{2}$	5 $\frac{1}{2}$	4 $\frac{1}{2}$	
6. Felix	4 $\frac{1}{2}$	4 $\frac{1}{2}$	5 $\frac{1}{2}$	5 $\frac{1}{2}$	5 $\frac{1}{2}$	Murderers of the crew and passengers of the brig Crawford, on the 1st of June, 1827.
7. Courro { Left }	4 $\frac{1}{2}$	4 $\frac{1}{2}$	5 $\frac{1}{2}$	4 $\frac{1}{2}$	4 $\frac{1}{2}$	
{ Right }	4 $\frac{1}{2}$	4 $\frac{1}{2}$	5 $\frac{1}{2}$	4 $\frac{1}{2}$	4 $\frac{1}{2}$	
8. Pepe /	4 $\frac{1}{2}$	4 $\frac{1}{2}$	5 $\frac{1}{2}$	4 $\frac{1}{2}$	4 $\frac{1}{2}$	
9. Alexander Tardy	4	4 $\frac{1}{2}$	6 $\frac{1}{2}$	5 $\frac{1}{2}$	5	

*Measurements of full Casts, or over the Integuments, of
Criminals executed for Murder.*

	Measure to Philoprogenitiveness.	Measure to Lower Individuality.	Destructiveness to Destructiveness.	Cautiousness to Cautiousness.	Ideality to Ideality.	
1. John Thurtell	5	5 $\frac{1}{16}$	6 $\frac{1}{16}$	6 $\frac{1}{16}$	5 $\frac{1}{16}$	Phren. Journ. v. i. p. 329.
2. John Pallet	5	4 $\frac{1}{16}$	6 $\frac{1}{16}$	5 $\frac{1}{16}$	4 $\frac{1}{16}$	Do. do. do. 427.
3. John Slade	4 $\frac{1}{16}$	5 $\frac{1}{16}$	6	5 $\frac{1}{16}$	4 $\frac{1}{16}$	} From the Cambridge Chronicle, (an English paper.)
4. John Keppel	—	—	6 $\frac{1}{16}$	—	—	
5. John Johnson	—	—	6	—	—	
6. B. Ennis	—	—	6	—	—	
7. Liscombe	—	—	6	—	—	
Alexander Tardy	4 $\frac{1}{16}$	4 $\frac{1}{16}$	6 $\frac{1}{16}$	5 $\frac{1}{16}$	5 $\frac{1}{16}$	

Such then is the development and measurement of the individual under consideration: the task of deducing from them their corresponding traits becomes easy to the Phrenologist; but we deem it not necessary to detain you on this subject, as the history, &c. of the individual is too well developed in this book I now hold in my hand, and which we beg leave to submit as our report, *in part*.* The public newspapers also, during the last summer, contained abundance of information, and were not *tardy* in gratifying the insatiable thirst of their patrons in detailing all the minutiae of the "*tale of horror*." A collection of those is also submitted; but it is to be remarked, however, that the former contains all in a better dress, than that which may be found in the latter, with the exception of two paragraphs, which it is deemed necessary to notice in this report. The first is from "*The Portsmouth Commercial Advertiser*" of the State of New Hampshire, viz.—

"*TARDY, the Pirate*.—This fellow came into Portsmouth in "the Congress frigate in the autumn of 1813, and remained here a

* See the prefixed "Brief Sketch of the Occurrences on Board the Brig Crawford," &c.

"considerable time. If we remember right he was the cabin-steward of that ship, and was called Captain Steward on account of his French pronunciation. Captain Smith of the Congress, it will be recollected, came in here in ill health, and we have heard that his subsequent death was attributed to poison administered to him on board that ship. Tardy mixed with the most abandoned company here, and was in frequent broils. He afterwards went to Boston, and was there arrested for stealing the pocket-book of the late Captain G. W. Balch, at Colonel Wilde's stage-house, of which theft he was convicted, and punished with three years' confinement in the State Prison."

Now all this may be very true, with the exception of the insinuation of poison being administered to Captain Smith. I speak from personal knowledge,* and I will do Tardy the justice to observe, that I believe he faithfully performed his duty to Captain Smith during the whole time he served on board of the United States frigate Congress, with but one or two exceptions; one was in purloining some of Captain Smith's private stores, and selling the same to one of the petty officers, in which he was detected, and *flogged* severely by order of Commodore Warrington, who was at that time the first lieutenant of the Congress. It appears by the "muster-rolls" of that vessel, now in the archives of the navy department, that Tardy was *shipped* at Norfolk, Virginia, in March, 1812, and discharged at Portsmouth, New Hampshire, on the 8th of March, 1814, having fully served the term of his enlistment. As Tardy was discharged in March, 1814, we saw no more of him, and Captain Smith remained in command of the Congress. Captain Smith was some time afterwards ordered to the command of the Franklin 74, then lying at Philadelphia, where he died on the 6th of August, 1815, nearly eighteen months after his separation from Tardy. You will acknowledge, that if the insinuation be believed, it must have required a most wonderful and insidious poison to produce effects so very remote from its administration; and of such qualities too as are unknown to the faculty, or even to

* Dr Brewster was late a surgeon in the navy, and attached to the frigate Congress, before and during the late war with Great Britain.

Orfila himself. The fact was, that Captain Smith had been for several years labouring under all the grades of dyspepsia and general derangement of the chylopoietic organs; which eventuated in his final dissolution.

The second paragraph that claims attention is furnished by a correspondent of the "*Fall-River Monitor*," a paper published in the State of Massachusetts, and is as follows:—

"The notorious Alexander Tardy was one of those unfortunate persons who have inhabited the island of Hispaniola, and been compelled to leave the place during the convulsions which that ill-fated island has experienced. Finding he could no longer remain there in safety, he agreed with the captain of an American vessel to take himself and such of his property as could be removed to the United States, and as it was not prudent for Tardy to be on board at the time of sailing, he was to leave the harbour in a boat, the vessel to sail immediately, and take him on board at the mouth of the harbour. Every thing being in readiness, Tardy procured a boat and two negroes and got to sea; the vessel sailed according to agreement; Tardy saw her, rowed for her, waved his hat and hailed her; but the captain, (perhaps at that time not understanding French,) paid him no attention, but proceeded on, and arrived in the United States. He had made a great voyage; and from limited circumstances had thus become suddenly rich. Tardy, not daring to return to land, was three days at sea, when he was taken up by a British man of war, treated kindly, and landed at Havanna. He afterwards came to the United States to look after his property; but the captain and mate, at that time blessed with short memories, pretended to have no recollection of him, or of the circumstances which he related. He, however, by dint of threats and entreaties, obtained of the captain two thousand dollars, which was not supposed to have been a bare tithe of the original value.

"Tardy, finding himself suddenly reduced from a state of affluence to indigent circumstances, destitute of the means of gaining a livelihood, and without friends or a home, resolved to resort to the means for obtaining property similar to those that had been so successfully practised upon himself; and, from what is known of him since that time, he appears to have kept that resolution in strict observance. The event is, he has died by his own hand, and left behind the character of a demon. The American captain has lived and died with his own family, and many are willing to bestow on him the title of a gentleman."

It was but yesterday in conversation with the Honourable J. Pearce, a member of the House of Representatives, from Rhode Island, that I was made acquainted with facts suffi-

ent to rebut so formal a statement. His politeness induced him to leave on my table the following note:—

"Tardy came to Newport, Rhode Island, some twelve or fourteen years ago, and passed by the name of a French gentleman, who fled from St Domingo during the massacre at that place; his object was, in personating the character of the French gentleman, to recover some property alleged to belong to the French gentleman in the hands of a ship-master at Newport. Tardy employed the honourable Mr Hunter, late a senator from Rhode Island, to commence a suit; but, in examining his pretended claim, Mr Hunter discovered him to be an impostor, pronounced him to be such, and Tardy left the town in haste."

I will state in conclusion, that Tardy, in his deportment, was harsh, uncouth, and awkward; this was the more remarkable from his being a Frenchman: he was quarrelsome—often wrangling with his equals, but more particularly with his inferiors, to whom he was overbearing and extremely severe. I am induced to believe that he could not have been long in this country before my cognisance of him, from the circumstance, that when he first appeared on board the Congress, he spoke the English language so badly as to render him nearly unintelligible, and his difficult enunciation was considerably augmented by the loss of all the incisors of his superior maxillary jaw; and when he was discharged, after two years' service, he spoke the language with fluency and ease.

All which is respectfully submitted,

J. A. BREBETON, *Chairman.*

March 14, 1828.

LETTER FROM DR BREBETON TO GEORGE COMBE, ESQ.,
RELATIVE TO THE TWO FOREGOING COMMUNICATIONS.

Washington, D. C. 10th June, 1828.

SIR,—By direction of the Phrenological Society of Washington City, I have put up a set of casts for the Edinburgh Society. A printed report on the subject of the principal one is enclosed with them. The boxes containing them have been

forwarded to New York to a friend, that they may be placed on board of one of the regular American packets for Liverpool, and directed to the care of Dr Cameron of that place. One of the boxes is for the London Society, another for yours, and the third and smaller one, containing the cast of Tardy only, for Dr Cameron. On its reception be pleased to acknowledge it.

In addition to what is stated in the report, and respecting the authenticity of the remaining three, I will state the following:—It will be seen by their trial that they were condemned to be executed, and were accordingly hung on the day therein designated; soon after which a physician of Richmond (Dr Cullen) obtained their bodies, by permission of the governor of that state (Virginia), and afterwards sent their skulls to our Society, that casts might be taken of them, and which was accordingly done. We have no further information respecting them than that contained in the trial, with the single exception of the confession of Pepe, who acknowledged, a short time previous to his execution, “that the first murder he committed was on a fellow class-mate at school, when he was fourteen years of age; that he had committed many since, the number he could not *recollect*.” You will perceive on the os frontis of Tardy, a considerable mark, apparently made by a left-handed or back-handed stroke of a sabre; the same, of course, is on the original.

With respect to the pamphlet, (Article II. of this Number), I have to add, that it contains the whole state of the subject to the time it was published. Subsequently occurrences took place which were deemed unworthy of further public notice. They will be stated as briefly as I can make them:—In February following the professor gave a verbal intimation to our corresponding secretary, that he would deliver the lectures to his class on a day then designated, and would be glad of the attendance of the members of our Society. The secretary lost no time in communicating this information, and accordingly a few, who had been notified and

found it convenient, attended; among the number was your humble servant. On entering the room, it could not but be observed, the immense display that was arranged upon a very long table, consisting of skulls that were divided at their sutures; others sawed through their caps latitudinally, longitudinally, obliquely, perpendicularly, and indeed in every situation in which a saw or trephine could be made effective. It was, however, obvious to any Phrenologist, that they were not from subjects that had enjoyed *health*, and I need not mention to you on this point the extraordinary thickness which composed the majority of them. In casting my eyes around the room, I observed a large painting or diagram, which represented the internal and vertical section of the head in a line from the sinciput to the occiput; and the interior divided into party-coloured figures, about which I could not divine until explained by the professor. Those divisions upon a nearer inspection appeared, however tortuous and retroflexed they were, to arise or spring from the foramen ovale of the occipital bone, and apparently to diverge towards the circumference.

The lectures were delivered during the course of two successive days, and occupied nearly two hours on each day; the first comprising, in his opinion, a correct definition or description of each particular organ, as the *Phrenologists lay them down*; and the second an examination and refutation of their doctrines. It was easily to be perceived on the first day that he knew little about the matter. He then partly explained the object of the *diagram* to the following purport:—“The Phrenologists state or believe that the brain is divided into a multitude of cones (as is here exhibited), arising from the base of the cranium and diverging to the circumference; these cones they denominate organs of the mind,” &c. &c. Immediately after the first lecture, I went up and observed to him, “Doctor, if you will represent the organs as cones! be pleased to let them radiate from a more common centre than that of the occiput, and one that may be acknowledged

"by Phrenologists: What think you from the head of the "medula oblongata?" He replied, "that he was aware of "it, and that the radiation on the diagram was made so "through mistake."

It must also be stated, that he observed to his audience, that though the Phrenologists admit of double organs, yet there are some *single*, exemplifying them on a marked cranium, as Individuality, Comparison, Benevolence, Veneration, &c.

On the next day I attended also, and one or two examples that were then detailed will be sufficient to exhibit his profound research. In the first place, he paid no attention to the acknowledgment he made to me the day previous; and it is not to be wondered at, as it would appear to have been counter to his main argument. For instance, he contended, while exhibiting a most excellent preparation of the falx and tentorium of the dura mater, that if the organs originated at the base of the cranium, and to continue and diverge as was stated, How is it possible they can pass through this membrane, and not leave a vestige of their passage, as the audience may here see? (exhibiting the tentorium.) The same objection was made to his *single* organs, as the falx would inevitably be in the centre of them, and yet not the slightest vestige appears. Those examples I fear are already too much noticed.

Our recording secretary, Dr R. Randall, who is now a professor in the same college, in a few days afterwards replied before the Society and many visitors. It may only be necessary to add, that a vote unanimously passed to publish the replication, but which has been deferred by Dr Randall until the professor shall publish *his*; as it was generally understood that he had promised *his* class to do so. And thus it remains:—The professor, however, has since *re-delivered* them to a succeeding class during the last winter; and in the *third edition* whether they are *amended*, *corrected*, and *revised*, I have no information to give you.

You will observe, from the enclosed prospectus, that we are

about republishing the Journal in this city. Dr Bell warmly approves it, and I hope it may meet the approbation of yourself, as well as your brother. I have no doubt but we shall be able to effect our object. I have the honour to be, very respectfully, your obedient servant.

J. BARRETON,

*Corresponding Secretary of the Washington
Phrenological Society.*

George Combe, Esq. Edinburgh.

ARTICLE IV.

CASE OF PARTIAL DISEASE OF THE BRAIN, ACCOMPANIED WITH PARTIAL LOSS OF MENTAL POWER.

*(Read to the Phrenological Society by Henry Wight, Esq.
on 6th March, 1828.)*

A CASE of a very interesting nature has lately been presented to the consideration of those who make the physiology of the brain their study. There has been preserved by Mr Syme, part of the skull of a female who died about two months ago, of the external appearance of which the accompanying cut will afford a tolerably correct idea.



Externally there were two large bony excreescences at A A, and internally bony spiculæ had grown up in great numbers from the superorbital plate on the right side behind these elevations, and also, but fewer in number, on the left side. The spiculæ are most dense over the right eye, and the centre of the forehead; they extend a considerable way over the left side of the superorbital plate, but become less dense as they recede from the middle. The parts of the brain affected correspond to the organs of Individuality, Form, Size, Weight, Colouring, Order, Locality, Time, and partly to Tune and Language.

This specimen was at first caught at by the opponents of Phrenology, and represented as fatal to the truth of that science. When it was first shown to me, I was told that *there was the case of a person whose brain must in a great measure have been destroyed, but who still continued a sensible and reasonable being, with faculties unimpaired.* I was certainly much startled at the information, and felt satisfied that, if the fact were so, Phrenology must be false, because it is evident that, if an instance can be produced of a power or powers of the mind remaining unimpaired, when it is proved that the phrenological organs of those powers in the brain have been destroyed, then the evidence upon which Phrenology rests, viz. the coexistence of physical organs and their corresponding faculties, is annihilated. It was supposed by the antiphrenologists that this was a case which we should be willing to pass over in silence, and the knowledge of which we should be willing if possible to suppress; but I hope they will now be convinced that that is not the spirit with which we wish to encounter difficulties real or supposed.

The first wish of all the Phrenologists who saw this singular specimen of diseased head, was to know every particular of the mental manifestation of the unfortunate individual to whom it belonged. With that view I applied to my friend Dr Sibbald, who had attended her in his medical capacity for a considerable period antecede-

dent to her death, and from him I received all the information he had it in his power to give. He also kindly introduced me to the woman's brother-in-law, a most respectable and very sensible tradesman in Edinburgh, from whom I received a full and frank communication of every particular he could call to his recollection regarding the state of mind of his deceased sister-in-law. In applying to that individual for information, I went in the fairest manner possible, abstaining particularly from giving him any idea of the object which I had in view in making my inquiries; at the same time guarding as much as I could against asking leading questions, the effect of which upon the answers given every lawyer knows well. I passed myself off as a medical man, anxious as such to get every information on what I considered a curious medical case.

I shall now proceed to give the result of my inquiries; after which we shall see whether the case makes for or against Phrenology.

The individual, when she died, was nearly 50 years of age. The disease which caused the extraordinary appearance on the skull was, I believe, of about 18 years' standing. What was the cause of the disease I do not know, nor do I suppose it is possible or material to find that out,—it is with the effects alone that we have to do.

In the early period of her life, before she became a martyr to disease, she was a clever sensible woman; very amiable and kind-hearted, remarkably good-tempered, and with an amazing flow of animal spirits. She was very fond of fun and jokes, and laughed very heartily at them. She was very orderly and cleanly, exceedingly fond of music, remarkably honest and of good religious principles. I may also mention that before she became unwell, she was cook in the family of Mrs Cay in Heriot Row.

We have now seen what she was prior to the disease, and we shall see what she afterwards became. The person who gave me the information says, that for the "last 12 years

"she was always silly,—sometimes worse than at others." She became *gradually* worse and worse, (I speak of her mind) as long as she lived. In place of being, as formerly, good-hearted and amiable, she became furious and vindictive. She was employed till within a few months of her death in a shop, along with her sister, in selling tea. When in this situation she used to conceive that customers intended to cheat her, and became very outrageous and abusive to them. My informer says, that although they considered her tolerably correct in her money-dealings, they would not have thought her competent to take charge of the shop unless she had had her sister along with her; but Dr Sibbald tells me the sister said, that if she sold two pounds of tea, one at 6s. and the other at 5s., she made mistakes in adding the two together. I am inclined to give the preference to the statement of the sister, who must have had better opportunities of observing that part of her character, than the brother-in-law could have.

I have mentioned that she was exceedingly furious; and her fury was directed indiscriminately against friend and foe. She was honest in her youth, and in her diseased state she constantly supposed every one was going to cheat her, and she expressed great displeasure at the idea of any one doing a dishonest action. She conceived that she was cheated by her relations as much as by strangers.

When her most intimate friends and relations came into the room where she was, she did not appear to know them at first, and seemed afterwards to recognize them by the voice. If she saw a person one day she did not recognize him the next.

In looking over the window, she was in the habit of making remarks upon persons passing, and laughing very heartily at her own jokes; but she was almost invariably wrong in the remarks she made. She had no inclination to gossip, but quite the reverse.

She took no interest in anecdotes unless there was some-

thing humorous, which excited her to laughter to such a degree that she sometimes went off in a fit.

When she went out she looked bewildered, and her friends thought it more by chance than any thing else that she sometimes found the place she wanted. She had lost the power of discriminating colours. She was orderly and cleanly in her youth. My informer said he was not aware of her having become otherwise; but Dr Sibbald says he has found her wearing dirty ragged clothes, and she could not be persuaded by her sister to put on better; that she seemed neither inclined to keep things in order herself, nor would she allow her sister to do so for her. When he found her at dinner, she used to have the skins of herrings and potatoes lying scattered upon the table, and would not allow them to be gathered up. I may here also mention, that Dr Sibbald was in the habit of seeing her occasionally for two years, and that he did not consider her as rational, but as an overgrown child. She was very deficient in recollecting names. She was religiously mad, and always went to church "when she could crawl." When she returned from church she did not recollect much of what she had heard, and what little she did recollect she was anxious to communicate and talk about, but could not find words to express herself. She had also great difficulty in expressing herself at other times, when she wished to speak.

She was a great dreamer, and believed what she dreamed to be true. The substance of her dreams was principally, that her relations were transgressing the code of morality. She became very positive. When she received medicine she supposed it contained arsenic, and made other people swallow some of it to try its effect.

I have this afternoon seen a woman named Thomson, the wife of a chimney-sweep in Bell's Wynd, High Street, who used to be employed to clean out the tea-shop. I was not a little staggered, when, in answer to a question, she informed

me that the subject of my inquiry was a sensible woman. I found, however, upon inquiring farther, that she confirmed the account of her religious madness, the violence of her temper, and her conceptions that she was cheated by her friends. She informed me, what I knew before, that the person was fond of spirits, to which she attributed certain aberrations of intellect to which she was subject. In short, she seemed to consider that her mind would have been sound enough if it had not been for the drink. Mrs Thomson told me, however, that after her sister turned ill she got *quite stupid*, and took more to the drinking system, and that she thought the stupidity was brought on by distress for her sister's illness. We have here the fact of stupidity confirmed by Mrs Thomson, and the question comes to be, are we to take the cause she assigns for that fact? I hold the stupidity to be established at all hands, and that is all I have to do with at present.

Besides the above, there are some medical facts, the bearing of which I cannot pretend to know. When she was attacked by one of her fits, she was almost invariably recovered by cold water if given in time, and for that reason water was kept constantly at hand. She was rather costive. She suffered very acute pain in the forehead, for which she was ordered purgative medicine, and from this prescription she received relief. She always continued to eat her meals heartily; but became latterly very fond of ardent spirits and high-seasoned food. She never expressed any desire to be married; from which I understood that she did not exhibit symptoms of much animal passion.

I have now detailed as minutely and as correctly as I can all the information I have been able to gather regarding the mental manifestations of this unfortunate individual. It would certainly have been desirable to have had information of a more full and minute nature, if such could have been procured. One thing may be depended on, that what has been obtained has been impartial, and not preferred

with a view of making out any case, or substantiating any opinion. The person from whom it comes did not live in the house with the woman, although, from being a near relation, he had very good opportunities of judging of the state of her mind. Had the observations been taken by a philosophic and at the same time impartial man, they would no doubt have been much more satisfactory. Experiments might have been made which would have been a test of the power of each individual faculty, and we should then have known what remained entire, what were partially, and what wholly destroyed. As this is in itself so evident, I need not enlarge further upon it, and we must rest contented with what information we have, which is certainly far from being insignificant.

After what has been stated above regarding the state of mind of the female in question, I presume it will be conceded by men of every persuasion and of all opinions, that she was not a sensible responsible being. If this be not a case of insanity, I do not know what insanity means. Thus much we may take for granted, and I shall proceed to offer a few observations upon the particular features of the case.

The first thing that arrests observation is the circumstance, that here the feelings and propensities, generally speaking, were excited to a state of great activity, whilst the intellectual powers generally were quite the reverse. We find that she was religion mad, honesty mad, morality mad, furious, positive, and vindictive; but if we look for any thing like over-activity in the intellectual powers, we look in vain; for, as my informer says, "she was always *silly*." We do not find, as in some cases, that she was only insane upon one subject with returns to reason at intervals; for although the excitation of her feelings and propensities was not continual, when it abated her reason did not return,—“she was always *silly*.” If we turn from the mind to the cranium, and examine the appearance it presents, the result is very remarkable. It is in that part where the anterior lobes of the brain,

the organs of intellect, lie, that the disease manifested itself. The posterior and middle lobes were left untouched, subject to any disease which might cause nervous excitement. They were not destroyed, as the anterior lobes must in a great degree have been. Now is not this precisely the state of brain a Phrenologist would have predicted from the given manifestations of intellect? The feelings and propensities, especially those removed from the seat of intellect, were in full vigour and apparently over-excited, whilst those parts of the brain, upon which *they* depend for action, were left entire in substance. The intellect was almost obliterated, and so was that portion of the brain upon which *it* depends for action. Does this argue for or against Phrenology? If a Phrenologist had been set to fabricate a case to suit his purpose, could he have rivalled nature and made one more to his mind? I think not.

Here a Phrenologist might stop, contented that he had made out a triumphant case,—that every thing, so far as he could know, was in precise accordance with the doctrines of Phrenology. I maintain, that, on sound philosophical principles, here I ought to stop, because here certainty as to fact ends; and no man is bound or entitled to form opinions without being satisfied that the premises are true upon which he is to found conclusions. If I were perfectly aware of the *precise* state in which the anterior lobes of the brain existed, and of the *precise* state of the intellectual powers, I would then have it in my power to consider each organ by itself, and to observe whether each faculty suffered in proportion to its corresponding organ. I am not, however, furnished with full information, either as to the state of the intellect or the brain. What I have is only general; so of course must be any conclusions, upon the accuracy of which I can depend.

If any one take the trouble to look at the cranium, he will at once see that it is impossible to say how much the brain may have been displaced, how much wholly destroy-

ed, and how much partially. The interstices between the spiculæ, I am told, were filled up with brain, and it is of course impossible for any man to say what effect would be produced upon the functions of any organ by its being pierced by these spiculæ. In short, it must at once be evident, that *very* minute knowledge is here out of the question; minute inductions must therefore be given up.

Having said so much to guard against the imputation of making rash conclusions, with which Phrenologists are so loudly taxed, I shall proceed to some farther considerations which offer themselves, but to the *absolute* correctness of which I do not wish to pledge myself.

The cranium under consideration, when examined, appears to have been principally diseased above the right eye, and the growth of the bony substance most likely commenced there, and spread in different directions until it reached the frightful size which it now exhibits. Be that as it may, there is more of it on the right side than the left. It is most dense over the right eye and the centre of the forehead. It proceeds a considerable way over the left side of the head, but becomes less dense as it proceeds. It is impossible to say how far it reached upwards, but I should be inclined to think it must have reached the organ of Benevolence. It is fair to presume, that the denser the bony substance was, the greater would be the destruction of the powers dependent upon the organs affected by it.

Keeping in mind this statement of the general appearance of the cranium, let us now examine a little more minutely the information received regarding the mental manifestations.

We are told that she did not know people she had seen the day before. She did not know her own relations when they came in to her, and seemed to recognize them afterwards by their voice. What is this but the loss of the organ of Form?

Looking over the window, she made observations upon

individuals, which were almost invariably wrong. What is this but the loss of the organ of Individuality?

She took no interest in gossiping, nor in anecdotes, unless there was something ludicrous which excited her risibility. What is this but the loss of Eventuality? When she went out, if she found a place, they thought it more by chance than otherwise. There was the organ of Locality gone. She had lost the power of discriminating colours.

Here is pretty correct evidence that the organs, which one would naturally suppose to have been most affected by the disease, were those whose functions seem to have been most destroyed. I will not, as a Phrenologist, go the length of saying, that these faculties were utterly annihilated; but will any antiphrenologist undertake to prove that those portions of the brain corresponding to the faculties, were entirely destroyed, and rendered incapable of performing their functions in any way, however imperfectly?

Proceeding farther towards the left, where the bony substance becomes less dense, we have evidence that the powers of the mind were less impaired. As to Size, Weight, and Time, the person to whom I applied could give me no information; and it would have been rather remarkable if he had been able to do so, as they are organs whose functions are not much observed, and which cannot be well observed by any one who is ignorant of the fact, that they are distinct faculties of the mind. I was in hopes that I might learn something of them accidentally from some of the circumstances that were mentioned to me, but in this I was disappointed.

As to Number and Order, from what I said before, that the brother-in-law and the sister gave rather contradictory accounts, I am inclined to think that the organs must have been considerably injured, though not so much destroyed as those nearer the centre, and where the bony substance and cerebral disorganization were greater.

In the outskirts of the cranium we find a small space not

occupied at all by spiculse; and in accordance with this fact we find the organ of Tune undestroyed. Of all the organs, Tune and Wit are those I should have said were least likely to have been injured; and they are certainly the two faculties of the destruction of which I have received no evidence.

The organ of Language, particularly on one side, seems to have been very much impaired indeed! We are told she had great difficulty in expressing herself. She was deficient in recollecting names. When she returned from church, and wished to speak of what she had heard, she could not find words to express herself. So much for the organ of Language.

There are some strange coincidences here, lucky guesses, as the antiphrenologists would call them. I do not wish to push the argument, or to give my statement the appearance of a special pleading. Facts speak for themselves, and I shall allow the facts I have adduced to do their own business. I have said before, that the case of the Phrenologists was abundantly made out without the minute observation of particular organs, in which we cannot be sure that we are altogether correct. The intellect, as a whole, was almost a mere waste, and so was the part of the brain, as a whole, upon which intellect depends for its powers. It is curious, however, to go into particulars, and see the remarkable coincidences that occur of diminished brain and diminished function; they are, to say the least of them, in antiphrenological language, *lucky ones*.

I think, that, after the statement given, no candid disputant will hold up this case as impugning the truth of Phrenology. Our opponents may disregard it if they please, and I have no doubt they will do so; but let them recollect, what they have often said, that one fact is worth a thousand theories. We have admitted, that if they produce one well-authenticated fact, they may by it destroy Phrenology; they accept this offer, and yet disregard the thousands produced by us. A case of impaired brain and

impaired function is of much more importance than one where both are in a state of high perfection and activity. In the latter case the dependence of the mind upon the brain may be denied ; but I do not see how it can be denied in the former. If we produce a number of instances of large anterior lobes of the brain, and powerful intellects, and, *vice versa*, small anterior lobes with less powerful intellects, this is strong evidence that these lobes are the seat of the intellect. If we produce a case where the anterior lobes have been destroyed and the intellectual powers are gone, whilst the rest of the brain and the rest of the mind remain entire, I consider that to be evidence beyond the reach of cavil. Such a case is the present.

Our opponents have always taxed us with having loopholes to escape by. Let them in their turn now try their ingenuity to discover some loop-hole. Let any of them try to account for the phenomena in the present case without Phrenology, and see what he will make of it. A diseased mind they will call it. A mind, part of which was nearly dead, and part of which was more than alive. We wish them to explain this. We court inquiry, and shall be most happy to receive any additional light they may be able to throw upon the subject. I am far from maintaining that I have been necessarily free from error in the inquiries I have been making, and I shall feel obliged to any one who will take the trouble to inquire farther, and set me right if I have been wrong. Had the Phrenologists disregarded this case, what an outcry would have been raised against them. What has been done will, I hope, show that we have no wish to put aside facts apparently anomalous and difficult. If Phrenology be true, it is in no danger of being overthrown by any thing that may be brought against it. If it be false, the sooner it is proved to be so the better. Let it be remembered, that it is our duty to establish the truth of every fact we produce in our favour ; but our opponents are as much bound to establish the truth of what they adduce

against us. They have no more right to bring half known cases against us, than we have to bring them in our favour. It would be desirable, if those who oppose us would meet us fairly and honestly. Let there be a mutual desire to get at the truth whatever it may be.

Before dismissing the subject, it may be proper to notice one source of error to which observers, ignorant of phrenological principles, are exposed. If it be true, as we assert, that the mind depends upon material organs for manifestation, as digestion does upon the stomach, it follows, as a matter of course, that where a cerebral organ has been impaired by disease, its capacity for performing functions must to that extent be diminished, in the same way as the capacity of a stomach for digestion is diminished by any disease in that organ. This is a self-evident proposition, but one which does not seem to have been taken into account by antiphrenologists. A disease in a cerebral organ does not *entirely* destroy its power to act, any more than a disease in the stomach *entirely* destroys digestion. A person may be lame in his leg, and still able to walk; so he may be lame in the organ of Causality, and still be able to reason; but he will have a halt in his reasoning as well as in his walking. The same effects may be produced by disease in youth, which are visible in the dotage of old age; and in both cases from the same cause, a diminution of the power of the cerebral parts to perform their functions. Disease may shrivel up the arm of youth, as natural decay does that of the aged.

The object of these remarks is to show, that, in cases where a brain has been found to have been diseased, so as to have caused a partial disorganization, as in the present instance, in order to ascertain whether the mental manifestation accords with the state of the brain, what is to be ascertained is not whether the faculties of the mind remain at all, but to *what extent* they remain entire.

When we find any part of the muscular frame injured by disease, or otherwise, we find a diminution of muscular

power; so it is with the cerebral organs. The diminution of the power of an arm may be observed by its being able to raise a less weight, or to continue its exertions for a shorter period than formerly; and precisely analogous to this is the mode in which we must estimate the diminution of the power of a cerebral organ. We cannot say that a cerebral organ lifts a weight; but in exercising its functions it performs an operation *analogous* to that of the arm. Taking cognizance of a fact is a simple operation of the organ of Individuality, but to remember the fact calls for a greater exertion of power in the organ, of which, from disease, it may be incapable. A man may be capable of thinking and telling that he wishes to make a will, but incapable of the greater exertion of the same organ which would be requisite for knowing and telling what he wished the terms of it to be. These smaller and greater manifestations of the power of an organ are precisely analogous to the lifting of a smaller or greater weight by the arm. The kind and quantum of the disease, in both instances, will be the measure of the diminution of the power of exercising function. Like the arm, too, a cerebral organ may from disease be incapable of continuing its exertions for so long a period as in a healthy state. Every body knows how training a prize-fighter enables him to make great exertions for an extraordinary length of time. It gives him what in slang language is called *bottom*; but bottom may be given, by training, to the mind of a philosopher, as well as to the bodily frame of the pugilist. As training increases the power of endurance, so will disease diminish it, until at last little is left to the eye of the beholder but the shadow of intellect.

It follows, from these observations, that, in examining the mental manifestations of a person whose brain is diseased, with the view of ascertaining the truth of Phrenology, a previous inquiry must always be made of what were the mental endowments in a state of health. Without this knowledge, it is evidently impossible to ascertain the extent

to which function has been diminished. Where a brain is diseased, it is not enough to say that the patient remains sensible; because, as we have seen, the organs, though impaired still, perform their functions. The question to be put and answered is, "Whether the intellect remain as *vigorous* as before, and to what extent has its vigour been impaired?"

It is hoped, that these few remarks may have the effect of directing, in a proper channel, the inquiries of those whose pursuits bring them in contact with cases where observations of this nature can be made.

ARTICLE V.

MONOMANIA.

THE following extract was sent us by a friend, who found it under the head of "Gleanings" in the Dundee, Perth, and Cupar Advertiser of 2d October, 1828. It is gratifying to observe the newspaper press diffusing sound ideas on a disease which only ignorance can confound with crime: the lives of the insane, and the feelings of their relatives, are placed by the law in the hands of juries, and nothing is more desirable than that persons liable to serve in that capacity should be instructed concerning the effects of disease in the organs, on the mental manifestations, before being called on to decide the fate of a fellow-creature. There is a vast difference between a disgraceful death, as a convicted felon, and confinement, as a patient in an asylum for the insane; and yet the annals of our criminal courts, in both divisions of Great Britain, bear too many examples of the former having been inflicted on individuals who ought to have been consigned only to the latter.—EDITOR.

MONOMANIA.—The *Clinique*, a French daily paper devoted almost exclusively to medical and surgical reports, contains an account of the recent trial, at Angoulême, of a man named Jean Fort, charged with the wilful murder of his mother. This case, it seems, has been brought forward in the *Clinique* in support of the arguments of Doctors Gall, Georget, and others, who, from careful and long experience, have declared

that the monomania of homicide is found frequently in persons who in every other respect are not only free from mental alienation, but who also sometimes display great intellectual powers, and, but for the longing to shed human blood, which in them is unconquerable, might be considered mild and humane members of society, their general conduct being usually correct, and, during the absence of the paroxysms, decidedly benevolent. The description given by Gall, Georget, Esquirol, and other eminent surgeons and physicians, of the monomaniac, is as follows:—"When the monomaniac has accomplished his object, he no longer thinks of any thing else. He has destroyed life—his end is attained. After the murder he is calm, and does not attempt to conceal himself. Sometimes even, full of satisfaction with the deed that he has committed, he avows, and delivers himself up to justice. If he is taken, however, against his will, he is morose and melancholy; he uses no dissimulation or artifice, and reveals with calmness and candour the minutest details of the murder." Opposed to the doctrines of this party, by which monomania is declared a mental failing over which the subject of it has no control—the development of the passion being greater than the corrective powers of the mind—are some of the principal surgeons of the French metropolis, who deny, first, the correctness of the facts as stated by their opponents, and then comment on the bad example and danger to society of allowing monomaniacs to escape without punishment. As cases of real or pretended monomania are now become frequent in France, particularly in the south, which appears to be as fertile in the production of crime as of the gifts of nature, the discussion excites great interest in Paris, and is kept up by the new facts of which the opposing parties daily avail themselves. The following case seems to support the doctrine of Gall in a strong degree:—The murderer, in his calmness during the perpetration of his horrible purpose, and after its completion, resembles much the unfortunate man who was tried at Cork for the murder of his crew. On that

occasion a strong effort was made to convict the prisoner of wilful murder, against the concurrent testimony of the medical witnesses, who deposed to his monomania in the most positive and decided manner. The general correctness of the prisoner—the total freedom from mental imbecility, and even great powers of intellect in the ordinary affairs of life—were clearly deposed to; but the horrible disease (for it is a disease) of monomania was clearly evident, and it seemed extraordinary that there should be persons who had been well educated who could doubt its existence. Jean Fort, the monomaniac tried at Angoulême, is described in the account of the trial as an object of disgust, from the appearance of his face, which was covered with an ulcer which had nearly destroyed his nose; and instances of his having used threats of destruction to many persons, some of whom perhaps had ridiculed him on his appearance, were related in evidence. On one occasion he had been seen attempting the life of his mother, and, when disturbed, he exclaimed, “Well, if I do not kill you to-day, I can do it to-morrow!” At another time he attempted to destroy a young child, after having said to it, “I will kill you, you little rogue; for if I allow you to grow up, you will some day or other turn me into ridicule.” On the 18th of June last, Fort was accosted by a woman, to whom he said, “I am determined to kill all the people of Querroy.” “And why?” said the female. “Because they are too thick, and want thinning; some are too honest; but altogether they have caused me to kill my mother!” “Your mother!” “Yes; I have killed her, but I will put her into a coffin, and bury her myself.” On the following afternoon, another woman, who lived near the house of the prisoner’s mother, saw him enter the garden with a spade, mark out a grave, and begin to dig. She asked him what he was going to do? “I am digging a grave for my mother,” said he, “for I have killed her; and if you don’t believe it, go into the house and see.” During the night he continued to dig. The woman and her husband rose at midnight, and called

him to go to bed. He replied coldly, "Go to bed yourselves. I am not working on your property." When the mayor went to apprehend him, he was found lying in the grave fast asleep. Being awakened and asked what he was doing, he said, "I am digging a grave for my mother, whom I have killed," at the same time showing the instrument with which he had destroyed her. On entering the house the mother was found murdered in her chair. Fort followed, and began to prepare her for interment. He was suffered to do this, and in a few hours he had made a complete shroud. He was then taken to prison, and soon afterwards put upon his trial. The mayor, and several persons who had known him for years, swore that they had never witnessed in him any act of insanity. The physician of the place, and other medical men, gave similar testimony. He acknowledged the murder; said he could die but once; and that, if found guilty, ten days (making a sign to imitate the falling of the guillotine) would end every thing. The jury acquitted him, on the ground that at the time of the murder he was suffering under mental aberration.

ARTICLE VI.

LETTER FROM DR SPURZHEIM TO THE EDITOR OF THE PHRENOLOGICAL JOURNAL.

SIR,—In No 18 of your Journal, article 14 by Dr Fossati, p. 304-305, there are assertions which oblige me to trouble you with the request to insert in your next Number the following remarks:—Dr Fossati's manner of giving the statements and of arranging the arguments must prevent your readers from perceiving the inaccuracy of the former and the weakness of the latter. He evidently accuses you of pastia-

lity, and tries to diminish my merit. Your note, page 305, sufficiently explains why you were authorised to speak of "*Gall and Spurzheim*" together. Dr Gall taught you to do so long before I came to England, and we had published, under our joint-names, long before each of us published separately under his own name. I have by no means the intention to discuss the particular merits of Dr Gall and myself at the moment when I regret his death, because he can no longer enjoy the pleasure of witnessing the propagation of the most important science of which he laid the first foundation. I am glad, however, that I did not wait till after the end of his life to settle our account in stating fairly what belongs to him exclusively, and which are my claims, as far as discoveries and improvements are concerned. I have done it in the appendix to my French work, entitled *Essai Philosophique de l'Homme Moral et Intellectuel*, Paris, 1820. The only object of these present remarks is to show, 1st, That Dr Fossati, being ignorant of the progressive improvements of Phrenology, has no right to say that I have contributed only to consolidate Phrenology, and, 2d, That his manner of reasoning in the following quotation is little conclusive:—

"The founder of the doctrine," says Dr Fossati, "is M. Gall alone; every thing written and published before 1808 proves it sufficiently. Mr Spurzheim himself, who has deserved well of the science, cannot believe himself one of the founders of the intellectual physiology, since he only derived his knowledge of it from Dr Gall's lectures at Vienna in 1804. He acknowledges this in the preface to his '*Anatomy of the Brain*,' lately published in London, as he had previously honourably done in his former works. If we were to add the names of all those who co-operate by their observations and labours to the consolidation of the doctrine, we would soon have a numerous list."

In all my publications, I acknowledge, that Dr Gall is the founder of the PHYSIOLOGICAL PART of Phrenology; but how does Dr Fossati know that I only derived my knowledge of the doctrine "*from Dr Gall's lectures at Vienna in 1804*," since Dr Gall's lectures were interdicted in 1802, and he did not lecture at all in 1804, and I attended him for the first

time in 1800? Farther, how does Dr Fossati know that I "*had as yet done nothing for the science in 1808?*" He finds his answer in the previous publications, containing no statement that I was Dr Gall's colleague. He particularly depends on the work of Dr John Mayer, of Naples, published in Italian in 1808, composed from private information communicated by the author in Germany;—from a work printed at Dresden in 1805;—from the *Journal Encyclopédique* of Naples in 1808;—and, lastly, from the ideas of M. Walther, emeritus professor of Bamberg. "*Nowhere in this work is the name of Dr Spurzheim to be met with.*" Hence Dr Fossati concludes, that I had done nothing for Phrenology in 1808. He may maintain with the same right, that in 1800, when I attended Dr Gall's lectures for the first time, or even in 1804, when I became Dr Gall's colleague, Phrenology was the same as it is actually taught in Great Britain. Let us, however, consider the fountain-heads of Dr Mayer's work. Dr Mayer himself studied at Vienna at the same period as myself, and went to Naples before I became associated with Dr Gall in 1804; he therefore could say nothing of my labours from personal knowledge. Farther, the work published at Dresden in 1805 is written by M. Bloede; but whether it does or does not mention that Dr Gall and myself travelled and pursued together the anatomy and physiology of the nervous system in general, and of the brain in particular, as stated in the preface of our large work, the fact is no less certain. If my name be not mentioned in the *Journal Encyclopédique* of Naples in 1808, this proves nothing more than the inaccuracy of its editor; for Dr Fossati himself tells us, p. 308 of your last Number, that at Milan in the same year, 1808, in the Number for July of the *Journal* of the Society for the Encouragement of Arts and Sciences, he found an extract from the report of M. Cuvier to the Institute of Paris, on a memoir by Messieurs Gall and Spurzheim on the nervous system in general, and on the brain in particular; and yet, with this proof of my having been the col-

league of Dr Gall, Dr Fossati still thinks it absolutely necessary to consider the editor of the *Journal Encyclopédique* of Naples as an indispensable witness of my relations with Dr Gall! Lastly, the information which Dr Mayer could derive from Walther's work goes only up to 1802, when it was published at Zurich. M. Walther, emeritus professor of *Landshut*, instead of Bamberg, and now professor at the University of Bonn, speaks in his publication of the interference of the Austrian government with Gall's lectures, but he could not foretell my labours, which began two years later. His silence at 1802, however, cannot prove that in 1808 I had done nothing for Phrenology. Until Dr Fossati shall become better acquainted with the beginning and progressive improvements of our science, he cannot be a competent judge of the respective merits of Dr Gall and myself. If he can call my anatomical labours and the discoveries which I made before 1808 *nothing*, I wish him success in doing more than I have done for the anatomical part of Phrenology. Though Dr Gall is the founder of the *physiological part*, Dr Fossati will do well to compare the publications of Dr Gall's auditors up to 1805 with the improvements as published under our joint names. He also will do well to keep in mind that Dr Gall did not make one single discovery after I left him; and that there is a great difference, even in the anatomical and physiological parts, between Dr Gall's last publication and the state of Phrenology, as it is taught in Great Britain. As to our ideas on philosophy in its two important branches, ideology and morality, Dr Gall and I most widely differ from each other, as well as in reference to physiognomy and practical applications; and when Dr Fossati shall be acquainted with all those particulars, but not before then, he will be able to decide whether you are wrong in following Dr Gall's example, and in speaking of Gall and Spurzheim, when you treat of Phrenology in its actual state. He then also will understand that *cephalogy*, which signifies discourse about the head, does not comprehend the whole sphere of phreno-

logical researches. I am with great esteem, Sir, your obedient servant,

G. SPURZHEIM.

Birmingham, 5th October, 1828.

Note by the Editor.—We insert the preceding letter with great pleasure, as a simple act of justice to Dr Spurzheim, and are even glad that the unintentional omission of a correction by ourselves has induced him to step forward in his own defence. In proof of Dr Fossati's inaccuracy on two essential points, we published in our last the substance of a note written to that gentleman by Dr A. Combe, and we have now to add in further explanation, that, had time permitted, Dr C. would in all probability have also noticed the errors commented upon by Dr Spurzheim. But as Dr Fossati's pamphlet arrived only on the forenoon of the day on which an opportunity occurred of sending an answer to Dr F. by a friend who was to leave Edinburgh in the evening, Dr C. had time only to glance at its contents, and write the hurried note already published; and the matter was afterwards overlooked.

ARTICLE VII.

PRACTICAL PHRENOLOGY.

WE have often said that Phrenology is either the most practically useful of sciences, or it is not true; and we are happy to learn that the perception of its utility increases as it becomes known. In Edinburgh there are Phrenologists who, for years past, have examined the heads of servants before engaging them. One lady examined the heads of thirteen female servants in succession before she fixed on one that was suitable, and a trial of the individual selected has justified the opinion formed of her qualities. Another lady fixed on a servant after examining the heads of five, and was equally satisfied with the result. A friend informed us lately, that in England he had met with an extensive merchant

who stated that he never engaged a clerk without previous examination of his head. We speak from experience, in assuring our readers that they will find the advantage of following the same rule. It is melancholy to read in the newspapers frequent accounts of post-office robberies, of elopements of confidential clerks, public servants, &c. with large sums of money, and of the executions that follow, when, by using Phrenology as a test of natural qualities, such occurrences might be most frequently prevented. We are humbly of opinion that if, for confidential situations, young men were selected, in whom the organs of the animal propensities are moderate in size, and the organs of the moral and intellectual powers decidedly large, (and many such are to be found,) there would be a high degree of certainty that they would not commit these enormous crimes.

In dedicating children to particular professions the advantages of Phrenology are also recognised. A merchant in London was lately solicited to take into his employment a young man from Scotland, and he requested an Edinburgh Phrenologist to examine his head and favour him with a report for his guidance, which he did. We have been favoured with the report, and commit no offence in publishing it.

DEVELOPMENT OF A. B. AGED 15 YEARS.

- | | |
|--|----------------------------|
| 1. Amstiveness, large. | 19. Individuality, full. |
| 2. Philoprogenitiveness, rather large. | 20. Eventuality, large. |
| 3. Concentrativeness, full. | 21. Form, large. |
| 4. Adhesiveness, rather full. | 22. Size, moderate. |
| 5. Combaticiveness, full. | 23. Weight, full. |
| 6. Destructiveness, large. | 24. Colouring, moderate. |
| 7. Constructiveness, full. | 25. Locality, full. |
| 8. Acquisitiveness, full. | 26. Order, full. |
| 9. Secretiveness, rather large. | 27. Time, moderate. |
| 10. Self-esteem, rather large. | 28. Number, full. |
| 11. Love of Approbation, large. | 29. Tune, rather full. |
| 12. Cautiousness, large. | 30. Language, rather full. |
| 13. Benevolence, rather large. | 31. Comparison, large. |
| 14. Veneration, small. | 32. Causality, large. |
| 15. Hope, full. | 33. Wit, rather large. |
| 16. Ideality, full. | 34. Imitation, full. |
| 17. Conscientiousness, rather large. | 35. Wonder, rather full. |
| 18. Firmness, large. | |

Head large and high, anterior lobe large. Temperament sanguine—lymphatic.

"A. B. is a fine boy, and his development is well calculated to render him a useful man. I do not see any organ on which he is likely to go wrong except Amativeness. He will very soon be a lover, if not one already, and, were not his moral and intellectual development ample, I would fear his going astray in this feeling. He may have some tendency to low company, but by good management may be kept above it. He has as much of the propensities as is necessary to carry him through business and give him weight. His Self-esteem and Love of Approbation are well-proportioned. He will be polite, but independent. He has enough of Firmness, Secretiveness, and Cautiousness to give him tact and self-command. He has a large Destructiveness, and will be hot, but he has the powers of restraint abundantly. His Veneration is deficient, so that he will view mankind through his Benevolence, Love of Approbation, Adhesiveness, and Conscientiousness; he will not look up to them with awe; they must be kind and just towards him, otherwise he will not care for them. If it is expected to give religion any influence over him, it must be communicated in a rational and moral manner; he will not understand high devotional emotions, and be apt to question all that is marvellous. His Conscientiousness is good, and although not of the largest size, it is adequate to give him feelings of justice, especially as his Acquisitiveness is not too great. His intellect is very good indeed. He has observing powers of considerable magnitude, and excellent reflecting organs, so that he will be apt in learning, and judicious in applying what he acquires. Some of the knowing organs are deficient, but they are not much concerned in business.

"The temperament appears not very active; but, from the size of the brain relatively to the other parts of the body, I should expect the activity of the mental powers to increase. Great attention should be paid to his health in London; give him as much exercise as possible, and keep his digestion active. In directing him, treat him uniformly as an intelligent and reflecting young man whose desires are always to go right, and show him the reason of every thing. From his small Veneration he will not submit with internal satisfaction to mere authority. He will grow dissatisfied if he ever take up the idea that he is made to do things that are not necessary merely because he is a servant. He will scrutinize motives and form judgments very quietly but decidedly; and to preserve his respect, good sense and good feeling must be habitually manifested towards him. His feelings will be strong, and ought to be enlightened and guided. I shall be glad to hear how these anticipations correspond with experience."

The reader is requested to observe, that we do not publish this report as a *proof* of the *truth* of Phrenology. The individual who wrote it, and the merchant to whom it was ad-

dressed, were both satisfied on that point. The case is cited only as an example of the use which Phrenologists make of their science in the common business of life, and we expect that every reflecting person will perceive the advantage of such an analysis of a boy's mind, and of such directions for his treatment, supposing them to be founded in nature.

It is necessary, however, to state forcibly two observations, and to request the reader to keep them in view. The first is, that it must not be supposed that the twelve female servants rejected by the lady before alluded to were absolutely bad; on the contrary, for other families many of them might have been preferable to the thirteenth whom she selected. The lady knew her own temper, and the faculties necessary in a servant to suit that temper, and also to discharge the particular duties which she required to be performed, and looked for a combination of organs accordingly. For other tempers and other duties the individual chosen by her might have been ill-suited; whereas some of those passed over would have been excellently adapted. Secondly, parents or guardians of children who apply for phrenological assistance in directing their education, require themselves to possess a practical knowledge of Phrenology before they can be benefited by it. Without this, a statement of development and of phrenological inferences is of no more utility to them, than a book of directions for making watches or weaving shawls is to a person uninstructed in these trades. The mind of the child is not understood, the mode of directing it is unknown, and the real character of its manifestations is not apprehended. In consequence the directions cannot be applied. The merchant to whom the foregoing report was made is conversant with the science, and capable of using it.

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very serious accident, so serious indeed that it was near costing her her life. She was thrown from her horse in consequence of the skirts of the habit entangling in the fore-legs of the animal, and her head came to the ground with great violence. The wound was on the left eyebrow, near the organ of Order, as marked in the plates and on the bust. The outer plate of the bone was broken ; but fortunately the fracture did not reach the inner, as was ascertained by the probe. Whether the organ of Order was affected or not, I had no means of judging ; but Language was affected in an extraordinary degree. She actually forgot her own name, and that of her most intimate friend. To the persons who wished to render her assistance, she could only say, that before she was married her name was so and so, but that she could not recollect her present name ; and when my brother's name was mentioned to her she immediately intimated that *that* was her name. She was going to pronounce it, but it again escaped her recollection. A friend of ours, who had been riding with her, requested that she might be brought to Mrs D.'s of — street ; but she expressed her unwillingness to be brought there, lest she should alarm Mrs D., who is in a very delicate state of health. She at length, however, consented to go there, and mentioned the *number* of the house, but utterly forgot the name of the lady, though the one of all others with which she was the most familiar. She attempted to describe her, and mentioned the pale-yellow *colour* of her face, the consequence of illness. She perfectly knew all her friends,—she raved and talked incessantly for some hours after she recovered from the senseless state in which she at first lay ; but the loss of the memory of names did not continue after the first two or three hours. She has an excellent constitution, and in a fortnight after the accident I had the happiness of seeing her perfectly well.

In this case it is obvious that *Colour* and *Number*, though adjoining the external wound, remained uninjured ; and that

Language, which lay in the direction of the shock she received, was most, and perhaps *alone* affected. I am, &c.

C——A——.

Note.—The foregoing case is curious and interesting, in respect that the lady in question had not lost the faculty of Language, like Mr Hood's patient and some others. She appears to have possessed a command of *words* on all subjects except *names*; which would indicate that memory of names requires the aid of another faculty in addition to Language, the organ of which other faculty had been impaired. In No 9 of the Journal, vol. iii. p. 120, Dr A. Combe assigned reasons to show that *Individuality* is necessary along with Language to the memory of names, because the former faculty furnishes the idea of the object to be named. We do not offer any theory to account for the facts mentioned in our correspondent's letter; we merely record them; and when a sufficient number of cases shall have been collected, the explanation will be more easily and successfully discovered.—EDITOR.

ARTICLE X.

DR GRANVILLE ON PHRENOLOGY.

THE following extract from Dr Granville's Travels from St Petersburg, through Poland and Germany, has been going the round of the newspapers, and is referred to as containing information of importance concerning the state of Phrenology in Germany:—

“Professor Hufeland, the patriarch of medical literature in Germany, was asked by the doctor his opinion of Phrenology, and this was his reply:—

“‘The skull-doctrine,’” said he, “‘as Phrenology is now styled in Germany, is undergoing the fate of your Brownian system of medicine. We who were the first to adopt, and both strenuous

"and earnest to defend the *philosophy* of Gall, while you remained "sceptical on the subject, and full of mirth at our expense, are now "smiling in our turn at the seriousness and pertinacity with which "you endeavour to uphold the falling structure: Precisely as we "did with regard to the system of medicine of the Scottish profess- "or, which we were maintaining to be excellent with all our might, "while you, who had been the first to adopt, were laughing at our "*bombastie*, and what you were pleased to call *German stupidity*, "for yielding credence to it, though not till after a period of in- "credulity. But if you wish to hear more on the subject of the "skull-doctrine, see Rudolphi about it.' Unfortunately the pro- "fessor of anatomy was absent from Berlin,—a circumstance which "I regretted much on this as well as on many other accounts. I "had, however, been informed beforehand, that Rudolphi was one "of the most powerful opponents to the doctrine of Gall, and that "his testimony goes a great way in settling that much-debated "question."—Vol. I. p. 320, 321.

We notice this statement merely to remind our readers, that in the first volume of the Phrenological Journal, p. 592, article XII. the subject of "Professor Rudolphi and Phrenology" is fully discussed. Extracts are given from Rudolphi's work, "*Gründriss der Physiologie*," printed in 1821 and 1823, which show that he was as profoundly ignorant of the subject as Dr Barclay and Mr Jeffrey; and, in point of fact, after our exposition of the futility of his objections, he was entirely given up as an authority by the antiphrenologists of Britain. It amuses us to see exploded and threadbare nonsense brought forward through pure ignorance in a book of travels, and gravely taken up by the newspaper press as matter of high authority. Dr Granville and the newspaper editors appear to be equally unacquainted with Phrenology and the value of Rudolphi's objections to it, and ascribe importance to the latter exclusively on the principle, that "*omne ignotum pro magnifico habetur*."

It is not true that Phrenology was once embraced and then abandoned in Germany. It *was never* understood there; and the reasons for this, as well as the fact itself, are well known. Dr Gall, in common with all other great discoverers, experienced that a prophet hath no honour in his own country. His lectures were interdicted in Vienna, and he removed to Paris. In consequence, neither he nor Dr

Spurzheim have at any time published one word on Phrenology in the German language; they have not resided nor lectured in Germany since 1807; and even when Dr Gall did lecture in that country in 1805 and 1806, he delivered only a few discourses in a city, and then left it, without staying sufficiently long to make a deep impression. The doctrines were then less perfect than now; the evidence had not undergone so severe and extensive a scrutiny; and the war raged in all its violence, and distracted men's minds from sciences. It is not to be wondered at, therefore, that in these circumstances the few passing lectures delivered by Dr Gall, unsupported by books, and never repeated, were soon forgotten; but this is very different from Hufeland's assertion, repeated by Dr Granville, that Germany first embraced and then rejected the science. The Germans have a day of shame awaiting them. After England shall have taught them the value of Phrenology, which they now boast to have despised, they will visit the memories of such men as Hufeland and Rudolphi with that virtuous indignation which they would at this moment pour out upon their persons, if they knew how shamefully they have been deceived by them, and how contemptibly and unjustly they have been prompted to act towards one of the greatest discoverers who ever graced the annals of their country.

ARTICLE XI.

CASE OF — MACDONALD, THE ASSOCIATE OF MARY MACKINNON.

(To the Editor of the Phrenological Journal.)

EDINBURGH, November 3, 1828.

SIR,—HAVING heard in the course of this afternoon that a very celebrated person, Mrs Macdonald, the associate of the notorious Mary Mackinnon, (whose case is detailed in the

Transactions of the Phrenological Society,) and the supposed incendiary of Edinburgh, died yesterday in one of the clinical wards of the Hospital, I went in company with Dr. John Scott on purpose to examine her head. We found, as we expected, the anterior region of the head very small, while the posterior and middle regions were large. The basilar region was also much broader than the coronal surface. The head, upon the whole, was rather large; but the forehead and upper part were low and narrow, and an immense mass of brain behind the ear. Altogether the appearance of the head, which had been shaved before death, was as nearly as possible like that of the cast taken from the head of Mary Mackinnon; and if I had not known otherwise, I could have supposed the latter to be a cast from this head. The measurements and development taken down on the spot are as follows:—

MEASUREMENT.

Ear to Individuality,	4½
— to Occipital Spine,	4½
— to No 2,	4½
Destructiveness to Destructiveness,	6
Secretiveness to Secretiveness,	6
Cautiousness to Cautiousness,	5½
Ear to Benevolence,	5½
— to Veneration,	5
— to Firmness,	4½
— to Self-esteem,	4½
Acquisitiveness to Acquisitiveness,	5½
Occipital Spine to Individuality,	7½
Inhabitiveness to Comparativeness,	7½

ORGANS.

- | | |
|----------------------------------|-----------------------------------|
| 1. Amativeness, large. | 17. Individualities, both full. |
| 2. Philoprogenitiveness, large. | 18. Form, full or rather large. |
| 3. Concentrativeness, moderate. | 19. Size, moderate. |
| 4. Adhesiveness, rather full. | 20. Weight, ditto. |
| 5. Combativeness, large. | 21. Colouring, small or moderate. |
| 6. Destructiveness, very large. | 22. Locality, rather full. |
| 7. Constructiveness, small. | 23. Order, rather full. |
| 8. Acquisitiveness, large. | 24. Time, moderate. |
| 9. Secretiveness, large. | 25. Number, small. |
| 10. Cautiousness, moderate. | 26. Tune, full. |
| 11. Benevolence, rather full. | 27. Language, large. |
| 12. Veneration, moderate. | 28. Comparison, small. |
| 13. Hope, rather small. | 29. Causality, small. |
| 14. Ideality, very small. | 30. Wit, small. |
| 15. Conscientiousness, moderate. | 31. Imitation, moderate. |
| 16. Firmness, full. | 32. Wonder, rather full. |

The above development corresponds entirely with what is known of the character of the individual. She was, I believe, for years a keeper of or servant in a brothel. She was the person who locked the door of Mrs Mackinnon's house on Howit and his friends, and detained them with the view of extorting more money from them. The evidence on the trial will show the part she took upon that occasion; and although legal evidence could not be found to convict her of having set fire to her house in the Parliament Square in 1824, the circumstances of suspicion were so strong as to make it more than probable that she did so. Any farther remarks on such a character seem unnecessary.—I am, &c.

W. S.

ARTICLE XII.

CRITICAL ANALYSIS OF "THE HERCULANEUM" OF MR EDWIN ATHERSTONE, AND CORRESPONDING DEVELOPMENT, FROM A CAST IN THE POSSESSION OF THE PHRENOLOGICAL SOCIETY.

(Read to the Phrenological Society by Mr Simpson; the Cast of the Head on the Table.)

WHEN Mr Wheatston, the late secretary of the London Phrenological Society, was in Edinburgh, in October, 1827; he presented, in name of that Society, to the Phrenological Society, a liberal and valuable donation of casts. When they were unpacked, Mr W. placed two remarkable heads on the table, and requested two of the members present to try their skill off-hand on the predominant intellectual powers which each cast indicated.

One was a boy's, or rather a child's head of large dimensions, with the organs of Individuality, Imitation, Secretive-

ness, Ideality, Wit, and Language, so large as to leave no doubt of the manifestation of precocious histrionic powers. Upon this being predicated, the cast was declared to be of the head of little Burke, the comedian and violin-player, noticed in the 2d volume of the Phrenological Journal, page 597, and since introduced to the public of Edinburgh. There was a large development of the constructive and mechanical organs; but Tune was not so prominent as to lead the Phrenologists alluded to to observe that these powers would take the direction of performance on a musical instrument. It is, however, true that Burke's mechanical powers have taken that direction; but it is also true, that his incorrectness in melody is actually complained of by those who play along with him; but that his manipulation of the violin is allowed to be, for his age, quite wonderful.

The other cast was that of a full-grown man, with a large brow, and well-marked Ideality. It was concluded, that he must be devoted to intellectual pursuits, and likely to be eminent both in philosophy and elegant literature, if circumstances had led him to their cultivation. Mr Wheatston said, that he was a generally accomplished man, but had *one* pursuit to a passion. This, from the Ideality, it was guessed, must be poetry. Mr W. then declared, that the original was Mr Edwin Atherstone, a native of the south of England, a poet of no ordinary genius, and the author, among other poetical works, of a splendid description of *The Last Days of Herculaneum*; a copy of which poem, for a more minute comparison of its details with the rest of the organization, was, along with the cast, obligingly left by Mr W.

A humble attempt at this comparison is the object of the paper now submitted to the Society; and it may, perhaps, tend to increase the interest to declare, that, although one of the two inspectors above alluded to, the writer has not seen the cast since the first glance of it,—and it was a mere glance,—which he has described; on which occasion he gave his attention for a few moments to the Intellect and the

Ideality, and the general balance of the three regions of the head; but has inferred the *details* of the organization from the published poem. The cast is now on the table, and, after a brief critical analysis of the work, and estimation of the faculties thence inferred, any of the members may take the cast in their hands and report the organization.

Ideality is a feeling; not an intellectual power. The organ has not its place in the anterior lobe of the brain, which comprises all the organs of intellect. It feels poetical rapture, and will give the intellectual powers the impulse to produce poetry, colouring all their productions with its peculiar tints and hues; but of itself it does not produce poetry. Ideality prompting the intellect to the production of poetry, the poetry produced will take its character from the predominant faculties of the whole mind, both affective and intellectual. For example, Veneration, Wonder, Destructiveness, and Cautiousness will modify Ideality, and prompt Intellect to the description of such an overwhelming event as the destruction of Herculaneum, by the first eruption of Vesuvius; and the considerations, that it was the first,—the revealment of the tremendous secret to the astonished Mediterranean, that Vesuvius was another *Ætna*, nay, that it was a horrible mystery to the devoted victims, enveloped in pitchy darkness, showers of ashes, scorching heat, and suffocating closeness, for many hours before the final and fatal lava was poured forth, what had befallen them, or whether or not the destruction of the world itself had arrived,—are so many additional recommendations of the theme to such an organization. The poet suggests to his readers a frequent recollection of these important facts, as explaining his description of the effects of the terror produced by unknown horrors, which might otherwise appear unnatural or overcharged. He gives the younger Pliny as his authority for his description of this one of the most awful events recorded in history.

Mr A. manifests Individuality strongly in both its departments, narrating the awful event in no shadowy and ge-

neral manner, but calling up each object in minute, and real detail, as if placed before the senses. With Ideality in full activity, he thus begins his terrific song :—

"It was a day of gloom, and strangest scenes,
And feverish, and inexplicable dread,
In Herculaneum's walls. The heavy, thick,
And torrid atmosphere; the solid, vast,
And strong-edg'd clouds, that through the firmament
In various and opposing courses moved :—
The wild scream of the solitary bird
That, at long intervals, flew terror-driven
On high :—the howling of the red-ey'd dog
As he gaz'd trembling on the angry heavens :—
The hollow moans that swept along the air,
Though every wind was lock'd,—portended all
That nature with some dire event was big,
And labour'd in its birth.

The artist's shop
Was closed :—the hammer of the brawny smith
Lay on the anvil :—in the silent streets
The hoof of steed was heard not :—neath its shade
The whirling car slept on its noiseless wheels
'Twas silence all, and apprehension dark
And terrible. Who walk'd abroad might hear
From the closed house at times the infant's scream :—
The voice suppress'd of boding fear, like his
Who struggles in an agonising dream :—
Anon the deep and solemn tones of prayer :—
And then the mingled hum of many tongues
In earnest talk, yet soften'd down as though
They told of murders. From a slow-open'd door
A pale and shrinking figure came at times,
With wild and gleaming eye a moment turn'd
Up to the pitchy firmament :—then back
In haste withdrew, and with such gentle hand
As his who fears to wake an enemy,
The portal clos'd again.

As day advanced,
Sulphureous fumes pervaded all the air," &c.

There are many strongly-marked touches of the parental affection in the fearful descriptions, of which I have read but a small part; and we shall afterwards find farther reason to expect the organ of this propensity large in the author. For example,—

"Who sleeps within the city?—He, the sire,
Who, labouring hard for breath,—with burning brow,
And tense and bloodshot eyes,—yet fans the cheek
Of his convulsed and gasping child?"

Sleeps she,
The wretched mother, who the fiery skin
Of her delirious infant laves;—the lips
That can no longer drain the dried-up breast;
Wets with the water from the once cool well,
'Till now starts less burning?"

A great endowment of Colouring, as has often been said of Moore, gives a brilliancy to a poet's descriptions; a sort of variegated enamelling, analogous to what would be produced on the eye by a gorgeous display of the colours themselves. The following passage is rich in the sort of ornament alluded to:—

"No sweet varieties of colour here
As in the blessed sunshine:—no soft tints
Like those of sweet May-morn,—when day's bright god
Looks smiling from behind delicious mists;
Throwing his slant rays on the glistening grass,
Where, 'gainst the rich deep green, the cowslip hangs
His elegant bells of purest gold:—the pale,
Sweet-scented primrose lifts its face to heaven
Like the full, artless gaze of infancy,"—&c.

"Nature's too oft unprized treasures blest'd
That scene of woe. The pure white marble shaft
That beams aloft the princely portico
Of the proud palace:—the black dungeon gate:—
The pallid statue o'er some honour'd tomb
That ever drooping hangs;—and the bronze Mars
That bares his blood-stained sword:—the solemn tree
That o'er the sepulchre his dark-green boughs
Hangs melancholy;—and the vivid flower
That in its course still looks upon the sun:—
The deep-brown earth, and the fresh garden tints
Of emerald, with flowers of every stain
The rainbow's dye can give;—the beggar's rags,
And the cerulean blue of beauty's robe;—
All in one undistinguishable hue
Are clad, of lurid redness. In the streets
Thousands of fire-tinted figures roam amazed
And fearful. 'Is this morn?' they ask,
'Oh! what a night we've pass'd!—but is this morn?
'And what is that, high in the gory clouds,

'That orb of brighter crimson?' On it gaze
Unnumber'd wide and wistful eyes.—By heavens!
It is the sun in his meridian fields!"

Combined with softer and more joyous feelings, many a one, Destructiveness must, as a faculty, exist in considerable endowment in this author to prompt the images of ruin in which he deals; while ever and anon he breaks the monotony and deepens the effect of the horrors by some exquisite contrast of human bliss. The wretched Herculanians are visited by a deluge of hot rain, the effects of which are tremendous; but the passage is too long to extract. (*Vide* p. 23.)

Ideality, Wonder, and Destructiveness, combine to give dreadful effect to another passage. (*Vide* p. 30 to 35.)

The author has concentrated the whole of his genius in the following description: A soldier is separated from his only child, and immured in a dungeon for a military offence; but afterwards, through the compassion of the jailer, the boy is admitted to his cell. The father and child gasp in the heat and breathless closeness of the air, hear the thunders, and feel the massive prison heaving with the earthquake; the child is killed by the lightning, and lies out of the father's reach:—

"Where, wretched father! is thy boy? Thou callest
His name in vain:—he cannot answer thee:—"

Loudly the father called upon his child:—
No voice replied. Trembling and anxiously
He search'd their couch of straw:—with headlong haste
Trode round his stinted limits, and, low bent,
Groped darkling on the earth:—no child was there.
Again he called:—again at farthest stretch
Of his accursed fetters,—till the blood
Seem'd bursting from his ears,—and from his eyes
Fire flashed,—he strained with arm extended far
And fingers widely spread, greedy to touch
Though but his idol's garb:—Useless toil!
Yet still renew'd:—still round and round he goes,
And strains and snatches,—and with dreadful cries
Calls on his boy. Mad frenzy fires him now:—
He plants against the wall his feet;—his chain
Grasps;—tugs with giant strength to force away
The deep-driven staple;—yells and shrieks with rage,

And like a desert lion in the snare
 Raging to break his toils,—to and fro bounds.
 But see ! the ground is opening :—a blue light
 Mounts, gently waving,—noiseless :—thin and cold
 It seems, and like a rainbow tint, not flame ;
 But by its lustre, on the earth outstretched,
 Behold the lifeless child !—his dress is singed,
 And over his serene face a dark line
 Points out the lightning's track."

The unhappy father obtains a last embrace :—The heaving ground brings the child within his grasp. It was but for a moment ; for

" Death came soon, and swift,

And pangsless.

The huge pile sunk down at once
 Into the opening earth. Walls—arches—roof—
 And deep foundation-stones—all mingling fell !"

Burning rocks launched from Vesuvius are vividly described in several passages that follow.

In other parts, the poet describes the various modifications of mania which such dreadful over-excitement occasions. It is borne out by fact, that Destructiveness is apt to rush into diseased paroxysm in such circumstances. Defoe, in his History of the Plague in London, mentions instances of sudden impulses to destroy and indiscriminately massacre seizing over-horrified individuals ; and we all remember the narrative of the maniac ferocities of the wrecked crew of the Meduse. Mr Atherstone is therefore by no means out of nature,—in other words, unphrenological,—in his pictures of such frightful excesses. He describes suddenly-stricken maniacs rushing through the streets with drawn swords, attacking all they meet, and at last falling in conflict with each other.

A family-picture is then given of a wretched man and his wife, two blooming daughters and a son, exceeding perhaps in horror any thing painted by Mr Atherstone. The sudden maniac rage of the hitherto gentle wife, the death in different ways of the children, and the stone-like indiffer-

ence of the husband in "moody madness laughing wild," are incidents quite as natural as horrible. The frantic but vain attempts of some in their despair to escape on swift steeds, or in their chariots, are finely described, although perhaps in some degree extravagantly. The picture of final destruction which follows is overwhelming. The lava-flood is fearfully graphic:—

"Through the city now
The fire-flood goes, and in a cataract huge
From the steep rocks pours down into the sea.—
Right o'er, with sweep tremendous, the red stream
Launches into the deep:—the deep shrinks back
Hissing and roaring—steaming to the skies—
Seething like hottest caldron:—flashing up
Torrents of boiling brine, and darkening all
With clouds of densest mist. Again the waves
Return:—again the fiery cataract meets
And drives it bellowing back.—

The city at last sinks in the earth:—

"Tis gone! where late
The mighty city stood no trace is left:—
Its costly palaces—its splendid streets—
Its awful temples—all are gone. Remains
A dark-hued plain alone, whose rugged face
The lessening lightnings plough;—o'er which the flood
Of lava slowly settles in a lake.—
Years—ages—centuries—shall pass away—
And none shall tell where once that city stood."

Besides a large endowment of the knowing organs, the poem manifests a high degree of the reflecting. Comparison, with all its train of metaphor, simile, and allegory, greatly enriches the composition; and Causality is evident in the well-arranged and necessary sequence of the incidents.

In the same volume there is another poem from which we might enlarge the inferences of the poet's organization, but must be content with referring to it. It is founded on the tragical story in Xenophon of Abradates and Panthea.

The volume is the work of an author, not only of high intellectual powers, fervid imagination, and correct taste, but

of one having all that superiority of moral feeling which manifests itself in the words, and no doubt in the deeds, of the most considerate kindness, justice, and generosity.

In inferring the development I have contemplated the whole poem; to which the reader may have access. The quotations, which are necessarily limited, are not of themselves sufficient; they are given as specimens only.

The development inferred, in so far as the poem affords data, may turn out to be something like the following; and the accordance, if it appears, will lend support to the doctrine, that, as the instrument of a sound literary criticism, Phrenology stands alone and unrivalled.*

Amativeness, full.
Philoprogenitiveness, large.
Adhesiveness, large.
Combativeness, large.
Destructiveness, large.
Cautiousness, rather large.
Benevolence, large.
Veneration, large.
Hope, large.
Ideality, very large.
Conscientiousness, large.
Firmness, large.

Individuality, large.
Eventuality, large.
Form, rather large.
Weight, rather large.
Colouring, large.
Locality, full.
Time, moderate.
Language, large.
Comparison, large.
Causality, large.
Imitation, large.
Wonder, large.

Since reading to the Phrenological Society the preceding, the author has seen Mr Atherstone's "Midsummer Day's Dream;" in which, as an effusion of Ideality, he is not exceeded by any living poet. His Ideality not only fulfils the definition of the power, by ceaselessly aspiring to something yet higher and higher in every kind of excellence, but is seconded by other high powers in realizing these aspirations in description. The descriptions in this poem are strikingly gorgeous and splendid, and in no way belie

* When the author of this paper read his inferential development of the poet, the president, and one or two skilful members, took the cast in their hands, and stated, organ by organ, their opinion of the real development. The inferential was pronounced right in every organ enumerated. For some organs the poems afforded no data.—EDITOR.

the organization ; while there is a yet larger element than *Herculaneum* can supply, of kindness and of joyousness, fruit of a beautiful endowment of the moral sentiments, which enjoys nature's sweets and bounties, exquisitely and gratefully, and loves to see them enjoyed by every other sentient being. We cannot withhold the rising sun :—

" Towards the east

An atmosphere of golden light, that grew
Momently brighter, and intensely bright,
Proclaim'd the approaching sun. Now—now he comes :—
A dazzling point emerges from the sea ;
It spreads ;—it rises :—Now it seems a dome
Of burning gold :—higher and rounder now
It mounts—it swells :—now, like a huge balloon
Of light and fire, it rests upon the rim
Of waters ; lingers there a moment ;—then—
Soars up.—

Exulting I stretch'd forth my arms,
And hail'd the king of summer. Every hill
Put on a face of gladness ; every tree
Shook his green leaves in joy : the meadows laugh'd ;
The deep glen, where it caught the amber beams,
Began to draw its misty veil aside,
And smile and glisten through its pearly tear.
The birds struck up their chorus ; the young lambs
Scour'd over hill and meadow ;—all that lived
Look'd like a new creation, over-fill'd
With health and joy ; nay, ev'n the inanimate earth
Seem'd coming into life.

But glorious far
Beyond all else the mighty God of light
Mounting the crystal firmament : no eye
May look upon his overwhelming pomp :
Power and majesty attend his steps ;
Ocean and earth adoring gaze on him :—
In lone magnificence he takes his way
Through the bright solitude of heaven.

The sea

Was clear and purely blue, save the broad path
Where the sunbeams danced on the heaving billows,
That seem'd a high road, paved with atom-suns,
Where, on celestial errands, to and fro,
'Tween heaven and earth might gods or angels walk."

Room ought to be found at the present moment for the

description of a comet's encounter with the earth; but, although a fine effort of Ideality, it is too long.

The poet, traversing boundless space with a celestial conductor, sees a world destroyed and a sun created:—

" But He who hath destroy'd can re-create.
 In empty space and darkness, suddenly
 We have beheld a cloud of pearly light;
 And all about, to infinite extent,
 The ether thickening like a radiant mist;
 Working tumultuously,—and round, and round,
 Rushing in endless circles,—wheel in wheel.
 Anon the pearly cloud becomes a sphere;
 Condenses—brightens—glows—revolves—expands—
 Flashes—and burns—and darts excessive light,—
 And grasps the kindled ether as it rolls,
 Turning it all to fire; and round and round,
 Swifter and faster vehemently whirls and burns,
 And gathers prodigious bulk,—till lo!—it is a sun!"

Even with the foregoing appendix, added in consequence of seeing the "Midsummer Day's Dream," we are not permitted yet to dismiss Mr Atherstone. Since that appendix itself was written, his genius has given to the world part of a yet more important poetical work, and one which, while it still more strongly confirms our phrenological exposition of his talents, will, there can hardly be a question, rank him among the foremost of living poets. We allude to a regular epic poem on the exalted theme of the fall of Nineveh, with the first six books of which he has, we may safely say, delighted the poetical world.* It is out of the question to analyze such a work at the end of a phrenological critique on the poet's lesser productions; we will not even quote from its pages. We have read the six books almost without rising, so much of brilliancy and deep interest do they possess, and so little of the heaviness of most epic poems; and we were witness lately in London to the high popularity of the poem,

* Since we wrote this we find our opinion essentially confirmed by that of the Edinburgh Reviewers.

—coming out, as it did, at the same time with Martin's gorgeous picture on the same subject; and, moreover, with the great increase of the interest excited by both of these kindred productions of genius, produced by the circumstances of the artists being intimate friends, who had worked together, though in their separate lines of art, with a reciprocity of poetical feeling from which they respectively reaped the highest advantages. One circumstance singularly confirms what was said above in this paper, of Mr Athenstone's intense love of Colouring. He could scarcely, it seems, be satisfied with the highest touches of his friend's pencil, in this department; but urged him to still farther efforts of colouring, till the effect became quite dazzling. To our phrenological readers we strongly recommend both the poem and the picture of the "Fall of Nineveh."

ARTICLE XIII.

An Inquiry concerning the Connexion of the Mind and the Brain, with Remarks on Phrenology and Materialism, by William Wildsmith, Member of the Royal College of Surgeons in London, and of the Philosophical and Literary Society of Leeds. London and Leeds, 1828, pp. 74.

THIS pamphlet was occasioned by opinions expressed by the Rev. R. W. Hamilton, in an "Essay on Craniology," and in a "Series of Lectures on the Intellectual Emotions," read before the Leeds Philosophical and Literary Society. Owing to the exclusion of all useful physiological information from popular education, the great body of the reading public of England are as profoundly ignorant of the structure and functions of the different parts of their own bodies, and of the connexion between the body and mind, as of the geography of the moon, or the rural economy of the 'Géor-

gious sides. They are consequently in the most desirable condition for the purposes of a defender of old absurdities, and an opponent of new and important truth; they are ready to reject any thing, to be alarmed at any thing, and to persecute any thing, connected with physiology, which any self-constituted oracle may be pleased to denounce to them as worthy of such treatment. The Rev. R. W. Hamilton has written an essay and delivered lectures to inform the reflecting people of Leeds, that "not a single proof has ever been furnished that a mental operation is connected with the head or its interior parts;" that "the encephalon has as much connexion with mind and character as the marrow of the leg-bone;" that the belief of the mind having its seat in or connexion with the brain, leads to a low degrading materialism and infidelity; and, consequently, that Phrenology has no rational claims to credibility; and such appears to be the state of information in Leeds, that Mr Wildsmith, himself a surgeon, has considered it necessary to publish an able and eloquent pamphlet of 74 octavo pages to prove by *authority*, as well as by fact and reason, that the mind is connected with the brain, and that this fact in nature is not subversive of our holy religion. We record these discussions to afford posterity an index to the attainments of the present enlightened age on the subject of human nature; that they may render a just tribute to Phrenology, when, by its becoming a branch of popular education, it shall have delivered them from such a chaos of ignorance, bigotry, and conceit. .

Mr Wildsmith commences his pamphlet with a sketch of the intellectual faculties, and describes them as consisting of sensation, perception, memory, judgment, &c. according to the exploded philosophy of Locke. This is at variance with Phrenology, and we do not perceive what led him into the error. According to Phrenology these are modes of action of primitive faculties, but not faculties themselves. In his anxiety also to get quit of the charge of materialism, he is

betrayed into inconsistencies. For example, he remarks, that "it ought to be acknowledged, that the labours of our ancestors have done much to explain the qualities of spirit and its states of existence."—"The many curious and important facts, which every where are supplied for our cognizance and reflection, enable us to conjecture, with some degree of confidence, several of the secrets and mysteries of this silent but awful being." This occurs on page 5; and on page 7 he says, "We are totally incapable of conceiving of spirit or mind in its abstract and separate nature;" and in a note to page 66 he observes, "We cannot truly conceive of nothing but with an allusion or a reference to matter: however we may talk or think of spirit, our language fails us when we attempt its description. We cannot have a notion of any being which does not occupy a certain space, however subtle it may be."

We notice these inconsistencies, in order to press more forcibly on the mind of our readers what we conceive to be the true doctrine on the subject of the mind's substance, and which will never be found to lead to inconsistency. It is this. The popular notion, that we are conscious of mind, or spirit, as something within us which thinks and feels wholly separate from and independent of the body, is a mere illusion, originating in the psychological fact, that the mind is not conscious of its own organs. These are made known to us solely by observation and experiment. We may as well affirm, that it is spirit which raises our arms and moves our legs, independent of organic apparatus, as that it is spirit which thinks and feels without the intervention of organs. We are not conscious of the agency of nerves in moving the limbs, and we are not conscious of the intervention of the brain in thinking; but experiment and observation demonstrate, that without nerves the arms and legs cannot be moved; and that without brain, thought and feeling cannot be experienced or manifested in this world. Every conception, therefore, that we know any thing whatever about mind or spirit, as it exists in itself, and unconnected with matter, is a pure fancy; and it is always safest and best to come to the ultimate truth at once, without fear of its consequences.

If then we have no knowledge or experience of mind independent of matter, it is obvious, that he who undertakes to demonstrate the immateriality of the soul from *reason*, deceives himself; he has not one fact in nature on which to ground an inference; and inferences without premises are mere fancies. All that observation and reason establish is, that man possesses certain animal propensities, moral sentiments, and intellectual faculties, and that in this life these never operate except in connexion with organs.

To the opponent who objects that this is materialism, we have only one answer,—It is an undeniable fact, it is the true constitution of nature; God is the author of nature; He created mind and body, and united them thus. You may call his workmanship materialism, or immaterialism, or by any other appellation; but if, by designating it by an opprobrious epithet you mean to condemn it, you sit in judgment on the Almighty; whereas we bow before his wisdom and admire his works. If you do the same, we are agreed; and then we conclude, that the Deity has not erred in bestowing on man the constitution which he actually possesses.

But it will be said, man cannot be immortal, if in this life his mind is not known, except in connexion with material organs; and how can we ascertain that, when these organs are dissolved, there will be any mind remaining? We reply, that it is a grave error, which has too long been allowed to occupy the public mind, that immortality can be established by determining the substance of which the mind is composed. In point of fact, we are utterly ignorant of the substance or essence of every created object; and, if mind unconnected with matter is absolutely unknown to us, how can we discover what its substance is? Farther, the notion that immaterial substances (if such an incongruous combination of words may be allowed) are indestructible, and therefore immortal, but that material existences are destructible, and therefore transitory, owes its origin to the ages of barbarism;

when the limits of human knowledge were disregarded, and the real constitution of the universe unknown. As already observed, immaterial substance or essence is a mere abstraction of the human imagination, altogether unknown either to our senses or understanding: every thing we see, hear, and feel, is material, and our own minds are unknown to us except incorporated with matter. What a miserable foundation, therefore, on which to rest our hopes of immortality is a hypothesis that has no basis beyond the human imagination! This, indeed, is almost self-evident. Immaterial essence is unknown to us; its properties, therefore, are unknown; and hence it is a mere gratuitous assumption, that one of its properties is indestructibility. To say, therefore, that the immortality of the soul depends on its immateriality, is to maintain that it depends on a mere mental abstraction, on a notion, on a phantom, unsupported and unsupportable either by fact or inference.

It is equally unphilosophical to contend that matter is perishable. This was the idea of ignorant schoolmen. The researches of modern chemistry have shown that matter, so far as our experience reaches, does not perish, but merely changes its forms and combinations.

Do we then, we shall be asked, profess ourselves to be materialists, and confess that Phrenology leads to this result? We profess ourselves to be profoundly ignorant of the substance of the mind, and of the substance of every thing else; but we have implicit confidence in the Creator, that he has made no mistake in regard to the essence of the mind; that He has constituted it of the right materials to fulfil its destinies; and, we are humbly of opinion, that all dispute and discussion about its substance, and the consequences of its being made of this or of that, are, philosophically speaking, puerile and absurd, and, theologically, impious.

How then are we to discover the destinies of the mind? Speaking as *philosophers*, we answer, just as we discover the

ends or purposes of any other created object, from its qualities and their relations to other beings. It is from the mind possessing faculties of Benevolence, Ideality, Veneration, Hope, Conscientiousness, and Intellect, and from the relations of these faculties to the creation and the Creator, that all rational inferences in favour of immortality must be deduced. This subject is discussed at length in the article Materialism, in the first volume of this Journal, published also in Mr Combe's Elements and System, to which we refer the reader. With all deference, we conceive that this view of the basis of immortality, as it is the true one, is far more rational, satisfactory, and impregnable, than the lame assumptions on which this tenet is generally rested. If it cannot be supported on these grounds, we humbly think, that *reason* must be altogether abandoned as maintaining it, and its foundation placed at once on revelation alone.

Mr Wildsmith is completely and triumphantly successful after he leaves the barren and intricate field of metaphysics. He proves the connexion of the mind with the brain, first, by the most incontestable physiological facts; and, secondly, by quotations from the greatest authorities, viz. Sir Isaac Newton, Locke, Dr Clarke, Dr Porterfield, Dr Watts, Denham, Dr Bates, Haller, Blumenbach, and Abernethy; and he refers to White, John Hunter, Gordon, Richerand, Bell, Magendie, Tiedeman, and many others.

He supports his third head, that the connexion of the mind and brain does not lead to materialism and infidelity, also by able arguments and the greatest authorities, such as Dugald Stewart, Haller, &c. As a specimen of his style, which, although occasionally incorrect, is elevated, and sometimes eloquent, we select the following passage:

"Students of Medicine! you have been told, that to believe in
 "the brain being the organ of thought is to encourage the most
 "baneful enemy to Christianity, the greatest foe to religion and to
 "truth. I tell you it is not; and I have too much interest and
 "concern in your welfare and future happiness to wish to deceive
 "you, or in anywise to divert your attention from the sacred fount

“ of perfect and eternal truth. I have produced my evidence, ~~im-~~
 “ partially selected my authorities, candidly stated the result of what
 “ is most consonant to truth, and have shown you that the orna-
 “ ments and the pillars of your profession have uniformly advocated
 “ these doctrines. Examine diligently for yourselves,—let no au-
 “ thority, however venerable from age or sacred by profession, ex-
 “ clude from your minds ideas or notions which are the result of
 “ sincere and diligent research. Had our ancestors or our contem-
 “ poraries desisted from exploring and inquiring into the laws of
 “ creation from a *fear* that it would lead to the subversion of order
 “ and religion, we should now have wallowed in all the blissful ig-
 “ norance of monastic ascendancy ; in a state of abject apathy little
 “ removed from the indolent brute, and incapable of enjoying those
 “ manifold delights which ever accrue to the disciple and observer
 “ of nature.

“ Recollect what I have asserted—That the brain is the **ORGAN**
 “ of thought. I deny any further concessions,—I would not have
 “ it thought that an atom, an effluvium, nay, to use a word of
 “ Berkeley's, an infinitesimal of mind can be produced by the
 “ brain. Surely, if it were not derogatory to the Godhead himself
 “ to be clothed in flesh, we cannot be chargeable with impiety when
 “ we assume a similar garb for the mind—the offspring of the
 “ Deity. The same Divine Architect which creates the soul can,
 “ with an equal propriety, decree that the brain shall be the resi-
 “ dence of the majestic guest, and that it alone shall minister to the
 “ absolute powers of mind during its sublunary existence.”

It gives us great pleasure to see men of the moral temper
 and intellectual talents and attainments of this author daily
 enlisting themselves on the side of Phrenology. We con-
 clude with the following extract, which is equally eloquent
 and just:—

“ What the motives or ends in view are of those who so violently
 “ declaim against these inquiries respecting mind and brain, I am
 “ at a loss to say. It cannot be to serve the cause of religion. We
 “ have seen the foundation and rationale of the system, and have
 “ clearly demonstrated that its basis is truth—and truth, we all
 “ know, is the essence of religion. As truth is freed from error, re-
 “ ligion is the more firmly established ; and it must ever be acknow-
 “ ledged that true religion and philosophy go hand in hand, and
 “ must ever mutually support each other. The whole creation of
 “ Omnipotence, and the laws he has ordained for its government,
 “ display that harmony which no efforts of mortals can in any way
 “ disturb. If this or any other science be established or conducted
 “ otherwise than on the fundamental principles of fact and observa-
 “ tion, it must necessarily soon yield to the wreck it truly deserves.
 “ What then, I would again repeat, can be the motives of such op-
 “ ponents ? The opinions I have endeavoured to support have been

" attacked by sophistry, by wit, sarcasm, irony, ridicule, and the
 " long train of specious but detestable weapons ; but they yet pre-
 " vail, nay rather, I may truly assert, they are gaining on the minds of
 " the public with the greatest conviction. And now, forsooth, the
 " alarming cry, that religion is in danger, is to be the charm which
 " must dissolve this potent spell on the minds of mankind. But
 " this cry is now too stale for effect ; it has too frequently been
 " sounded on similar occasions, when the fears or ignorance of
 " bigotry held reason and judgment under subjection. The in-
 " crease of knowledge and the general diffusion of its blessings have
 " dispelled the prejudices and antipathies which have with so much
 " zeal been infused by the artful and specious attempts of writers
 " and orators ; and it would be well for those who know the value
 " and importance of religion to abstain from foisting it to the sup-
 " port of opinions, which their own judgment tells them are too im-
 " becile to deserve the aid even of argument, much less of religion."

ARTICLE XIV.

DESCRIPTION OF AN ICELANDIC SKULL, AND CASE OF
 DISEASE IN THE FACULTY OF TIME, IN A LETTER
 FROM DR HOPPE TO MR GEORGE COMBE.

Copenhagen, 21st June, 1828.

MY DEAR SIR,—It is long since I had the pleasure of
 writing to you ; but I am prevented by my very small In-
 dividuality from procuring any thing worthy of your atten-
 tion, and it would be an abuse of your time merely to tell
 you with how much pleasure I follow the progress of Phre-
 nology, and what joy it gives me to hear of your well-being.
 Although I hoped to procure some skulls from Iceland, I
 have got only one, which I beg you to present to the So-
 ciety with my best respects, and sincere regret that I am
 unable to obtain more from that quarter. This skull has
 for many years been in the possession of a physician here,
 a friend of mine, who writes that I may rely upon its au-
 thenticity. For my own part, in so far as I am acquainted
 with the character of the nation, I think it a fair enough

specimen of the general cerebral development. The veneration which the Icelanders entertain for their dead and places of burial makes it highly difficult to get hold of their skulls. I am not particularly acquainted with many Icelanders, but perhaps you may be less so, and therefore it may not be without interest to you, and to the Society, if you think proper, should I briefly mention what notions we entertain concerning our peculiar transatlantic brethren.

One of their most prominent features is their indefatigable application to study. Indeed the whole nation may be called a learned one. Upon the large island there is but a single school, which is a literary one, and what we call a "Latin school." For the common people there is no school whatever; but, nevertheless, every peasant, even the poorest, is able to read his old chronicles at the fireside in winter, as well as to write; and, in general, they are so familiar with arithmetic, that they calculate their own almanacks. The Icelandic students at our university are renowned for their diligent application to their studies, and indeed many of them become very learned. But what kind of studies do they choose? I may say, without exception, the dead languages, antiquities, heraldry, and ancient history. They bestow no attention upon the living languages, modern history, natural philosophy, belles lettres (except the classics), mechanics, or metaphysics. They prefer their country to all others, and, with all its physical and social barrenness, sound its praises in a manner absolutely ridiculous. The people are very poor, and averse to change the ancient manner of fishing, weaving, &c. of their forefathers. They are destitute of any thing like industry, and neglect to make use of what few products their land affords.

I never heard of a musical or a witty Icelander, and scarcely of a true poetical one. Torwaldson, the sculptor at Rome, born at Copenhagen, of an Icelandic father, is a glorious exception. All their poetry is buried in old voyages and chronicles as dry as their *stockfish*. The arts, and,

I may say, every thing that requires manual dexterity, are neglected by this nation.

The Islanders are celebrated for want of cleanliness; and, according to the proverb, on entering the room of an Icelandic student, you are sure to discover, behind the stove, a barrel of salt mutton from his native mountains, and the shoe-brush upon it.

They are renowned also for frugality, and at home live upon almost nothing but dry fish and salt mutton. This is a fact, and not a saying of mine adapted to the flatness of the skull before Destructiveness.

I forgot to mention, that they are very religious, and their conduct towards men of importance is known to be such as to occasion suspicions of their sincerity. Upon the whole, however, they are a vigorous kind of people, who have their own will, and who are neither volatile nor phlegmatic. As in former times they kept their independence, so they have retained their language, (the old Scandinavian,) unchanged for many centuries. Upon the whole, I should expect, *a priori*, to find a pretty large cerebral development, very large Veneration, large Adhesiveness, Self-esteem, and Lower Individuality, but small Constructiveness, Form, Size, Weight, Colouring, Tune, Wit, and Imitation. You will find the greater part of these ideas corroborated by the skull, and I shall do my best to procure, if possible, more specimens of this peculiar nation.*

* The following are the measurements and development of the skull :—

	Inches.
Meatus auditorius externus to Individuality,	4 $\frac{1}{2}$
Ditto to Philoprogenitiveness,	4 $\frac{1}{2}$
Ditto to Comparison,	4 $\frac{1}{2}$
Ditto to Benevolence,	4 $\frac{1}{2}$
Ditto to Veneration,	5
Ditto to Firmness,	4 $\frac{1}{2}$
Ditto to Self-esteem,	4 $\frac{1}{2}$
Ditto to Concentrativeness,	4 $\frac{1}{2}$
Individuality to Philoprogenitiveness,	7 $\frac{1}{2}$
Destructiveness to Destructiveness,	5 $\frac{1}{2}$
Acquisitiveness to Acquisitiveness,	5

To fill up the rest of the paper, I beg leave to narrate a simple fact, not very interesting indeed, but which struck me forcibly. Last October I was called to visit Mrs G——, a nervous, but very intelligent woman of my acquaintance, labouring under a moderate degree of *delirium puerperale*. When spoken to she was quite sensible, and gave reasonable answers. She stated, *without being particularly questioned*, that, though she was perfectly conscious of herself and of every thing around her, she had no conception of Time; so that sometimes an exceedingly long period, and at other times but a few moments, seemed to her to have elapsed since she fell into her present state. She experienced a like perturbation of thought when telling me what had happened since the preceding day. She expressed great astonishment at this state of her mind: of which she was perfectly aware. She knew persons and things, and reasoned and spoke as well as ever. It was only on a few occasions, when left to herself, that she fell into slight delirium. I did not at first think phrenologically about this case, but when she, *unquestioned*, complained of pain and

	Inches.
Constructiveness to Constructiveness,	4 $\frac{1}{2}$
Cautiousness to Cautiousness,	5 $\frac{1}{2}$
Ideality to Ideality.	4 $\frac{1}{2}$
1. Amativeness, rather large.	19. Upper Individuality, rather full.
2. Philoprogenitiveness, large.	19. Lower Individuality, large.
3. Concentrativeness, full.	20. Form, rather large.
4. Adhesiveness, large.	21. Size, rather large.
5. Combaticiveness, full.	22. Weight, full.
6. Destructiveness, large.	23. Colouring, small.
7. Constructiveness, moderate.	24. Locality, full.
8. Acquisitiveness, full.	25. Order, small.
9. Secretiveness, large.	26. Time, full.
10. Self-esteem, large.	27. Number, small.
11. Love of Approbation, large.	28. Tune, full.
12. Cautiousness, large.	29. Language, full.
13. Benevolence, full.	30. Comparison, moderate.
14. Veneration, rather large.	31. Causality, moderate.
15. Hope, moderate.	32. Wit, rather full.
16. Ideality, full.	33. Imitation, rather full.
17. Conscientiousness, full.	34. Wonder, rather large.
18. Firmness, large.	

a "strong sense of burning in a *line* [these were her words] across the forehead," I was immediately struck, and asked her to point out the place with her finger. "There," said she, and laid the point of her finger *most exactly* upon one of the organs of Time. I asked if she felt pain in any other part of the head? "No," replied she, "only in this *line*." Upon the application of cold water, leeches, &c. to the temples, this pain and "sense of burning," as she expressed herself, finally left her. She continued for some days, however, confused in her memory, *quoad tempus et quoad facta*. When, for instance, I asked her about her bowels, she said, "I am not able to recollect now;" but when speaking about other things, sometimes she would suddenly interrupt herself or me, and say, "Now I recollect what you were asking about: it was so and so." When I asked if her mother had been seeing her to-day, she would answer, "Yes, she has been here, but I cannot tell whether it was to-day or yesterday,"—adding, some time afterwards, "Now, I know it was to-day." In the same manner, too, she answered my inquiries about her medicine, &c. A day or two afterwards she said with a smile, "Do not ask me such questions: you 'know that I cannot recollect it.'" She was so feeble and nervous, that I abstained from farther experiments on her faculty of Time; and in four or five days she had regained by degrees her full power of memory. She was very musical, her father giving lessons in music.—In less than four months afterwards she died of *phthisis pulmonalis*. She scarcely knew Phrenology even by name; and if she had known it, her moral character was too sincere to allow her to play tricks. Her husband can be witness, and I pledge my honour to the correctness of these statements.—I am, &c.

B. HOPPE.

ARTICLE XV.

EDINBURGH REVIEW AND PHRENOLOGY.

WE do not expect in the *Edinburgh Review*, consistency of doctrine on any of the great topics of which it treats. It is absurd to suppose them all the articles written by the Editor, or even that he understands them all; for in a work that embraces the whole range of literature, science, and the fine arts, the most accomplished individual may, without disparagement to his talents or industry, be presumed unacquainted with many of the subjects treated of. Farther, the best method of conducting a review is to engage men of talent to write articles in their particular departments, and to take the character of the author as a guarantee for the wisdom of his productions, laying aside all attempts at censorship for the sake of consistency, to which genius would not submit, and which would render mediocrity only more formal and dull. In No 88 of the Review, Mr Jeffrey himself was pleased to become the critic of Phrenology, while in No 94 one of his contributors has taken up the subject of the "Nervous System." It has afforded us amusement to contrast the two articles; not because we consider inconsistency in general as a valid charge against the Review, but because, on the subject of Phrenology, *authority* is held by many persons to be superior to fact and reason, and Mr Jeffrey in particular was represented as the very highest authority. In the brilliant days of Dugald Stewart's academical career, the philosophy of mind was considered to be complete without reference to organization; and accordingly Mr Jeffrey himself tells his readers that "he is not learned in anatomy." His article on Phrenology, therefore, forms a valuable record of the intellectual condition of a man of genius, after he had acquired all the knowledge which that celebrated teacher was capable of communicating to him on the subject of human nature. The author

of the article in No 94, on the other hand, is obviously a professional physiologist; and he is, besides, so gifted in talent, eloquence, and general information, that he is worthy of being contrasted with the ingenious Editor himself. We shall make a few extracts, selecting from each article passages on the same points of doctrine.

Mr Jeffrey, in No 88, writes as follows:—"The truth is, we do not scruple to say it, that there is not the *smallest* reason for supposing that the mind ever operates through the agency of any material organs, except in its perception of material objects, or in its spontaneous movements of the body which it inhabits."—Again, "There is not the least reason to suppose that any of our faculties, but those which connect us with external objects, or direct the movements of our bodies, act by material organs at all."—No 88, pp. 267, 298.

The Reviewer in No 94, after describing the characteristics of human nature compared with those of the brutes, says, "And, all this superiority, all these faculties which elevate and dignify him, this reasoning power, this moral sense, these capacities of happiness, these high aspiring hopes, are felt, and enjoyed, and manifested, by means of his superior nervous system." Its injury weakens, its imperfection limits, its destruction (humanly speaking) ends them."

Mr Jeffrey—"If the mind, in comparing or resenting, made use of certain organs in the head, just as it does in hearing and seeing, we cannot but think that the fact would be equally certain and notorious; but, as we know or feel nothing at all analogous, we cannot believe that any thing of the kind takes place."

The Reviewer in No 94.—"Almost from the first casual inspection of animal bodies, the brain was regarded as an organ of primary dignity, and more particularly in the human subject—the seat of thought and feeling, the centre of all sensation, the messenger of the intellect, the presiding organ of the bodily frame."

Mr Jeffrey—"What are called faculties of the mind we would consider as different acts, or rather states of it; but, if this be the just view of the matter, it is plain that it renders it in the highest degree improbable, if not truly inconceivable, that those supposed faculties should have EACH A SEPARATE MATERIAL ORGAN."—P. 261.

The Reviewer in No 94.—"Mr Bell soon applied himself to the correction of more formidable errors; and, attacking the common opinion, that a separate sensation and volition are conveyed by the same nerves, he asserted the functions of different parts of the cerebrum and cerebellum, and maintained that a great part of the nerves were not single nerves possessing various powers, but bundles of different nerves, the filaments of which were united

"for the convenience of distribution, but yet as distinct in their office as in their origin; that the perception or idea depended on the part of the brain to which the nerve was attached; and that the matter of the nerves of the external organs of sense was adapted to the reception of certain impressions only. Further, 'That the nerves of sense, the nerves of motion, and the vital nerves, are distinct through their whole course, though they seem sometimes united in one bundle; and that they depend for their attributes on the organs of the brain, to which they are several-ly attached.'"

Mr Jeffrey.—"The grandmamma wolf, in the fairy tale, does indeed lean a little to the phrenological heresy, when she tells little Riding-hood that she has large eyes to see her the better. But with this one venerable exception, we rather think it has never been held before that the strength of vision depended on the size of the eye, the perfection of hearing on the magnitude of the ear, or the nicety of taste on the breadth of the tongue or palate."

The Reviewer in No 94.—"It is in the nervous system alone that we can trace a gradual progress in the provision for the subordination of one (animal) to another, and of all to man; and are enabled to associate every faculty which gives superiority with some addition to the nervous mass, even from the smallest indications of sensation and will up to the highest degree of sensibility, judgment, and expression. The brain is observed progressively to be improved in its structure, and, with reference to the spinal marrow and nerves, augmented in volume more and more, until we reach the human brain, each addition being marked by some addition to or amplification of the powers of the animal,—until in man we behold it possessing some parts of which animals are destitute, and wanting none which theirs possess."—P. 443.

We earnestly solicit the attention of our readers who are not conversant with anatomy to the following passage of No 94. It is almost a repetition of statements which we have been making for five years past, but with which the public are still not sufficiently acquainted. "Even," says the Reviewer, "within our own time, although many great anatomists had devoted themselves almost exclusively to describing the brain, this organ used to be demonstrated by the greater number of teachers, in a manner which, however invariable, was assuredly not particularly useful. It was so mechanically cut down upon, indeed, as to constitute a sort of exhibition connected with nothing. The teacher and the pupil were equally dissatisfied with the performance, and the former probably the most; the latter soon gave up the painful attempt to draw any kind of deductions from what he witnessed, and disposed of the difficulty as he best

"could, when he had to render an account of what he had seen. Up to this day our memory is pained by the recollection of the barbarous names and regular sections of what was then the dullest part of anatomical study; which, although often repeated, left no trace, but of its obscurity or its absurdity. Here an oval space of a white colour, and there a line of grey, or curve of red were displayed; here a cineritious, there a medullary mass; here a portion white without and grey within; there a portion white within and grey without; here a gland pituitary; there a gland like grains of sand; here a ventricle, there a cul-de-sac; with endless fibres, and lines, and globules, and simple marks, with appellations no less fanciful than devoid of meaning.

"The nerves were no less bewildering when shown after the old method. The first pair of nerves, expanded on the os ethmoides, had at that time never been believed to be any thing but what they are, namely, the nerves of smell; and the reason of their being joined at the place of their expansion by a branch of the fifth, was not made a subject even of conjecture. Equal difficulties, and still greater complication, were to be encountered in tracing the ramifications and unaccountable conjunctions of the other nine pairs, which the unfruitful industry of the anatomists had successively brought to light; and when all these had been gone patiently over, there were between each of the vertebræ of the neck, of the back, of the loins, of the sacrum, successive pairs of nerves, invariably connected with the nerves of the brain, or with the great sympathetic nerve, and giving occasional origin to nerves destined to remote internal organs, or to the extremities. And when all these, with implications and interunions innumerable, had been considered, there was still left the great sympathetic nerve itself with its apocryphal origin, and absolutely endless connexions throughout the body.

"The anatomist dissected, and toiled on in this unpromising territory, and entangled himself more in proportion to his unwillingness to be defeated; and he succeeded no doubt in making out a clear display of all these complicated parts, which few, however, could remember, and fewer still could comprehend. Then came the physiologist in still greater perplexity, and drew his conclusions, and assigned offices to the multiplied portions and ramifications of nervous substance, by arbitrary conjecture for the most part, and often with manifest inconsistency. Although the brain was generally allowed to be the organ of the intellectual faculties, it was supposed to give out from particular portions of the mass, but quite indifferently, nerves of sensation, general and specific, nerves of motion, and nerves of volition; the single, double, or multiplied origin of nerves, which had not escaped notice, nor being supposed to be connected with these separate offices."—Pp. 447, 448.

"Such, so vague, so obscure, so inexact, so unsatisfactory, was the kind of knowledge communicated to the student, until a very recent period; and the impression left by it was, that of confused

"and unintelligible profusion in the distribution of nerves, of intricacy without meaning, of an expenditure of resources without a parallel in the other works of nature. But no small part of this confusion is now made clear; what seemed to be profusion, has been shown to be a provision equally wise and economical for the perfect performance and combination of the most important and distinguishing functions of living creatures."—P. 448.

After the exposition which this article contains of the principles of a sound physiology of the nervous system, Mr Jeffrey will pass the boundaries of all ordinary inconsistency if he shall, in future, admit any condemnation, or even disrespectful representation of Phrenology to be inserted in his pages. It is, substantially, a powerful pleading in favour of the science; and it is impossible for any man, who acquiesces in the truth of the principles recommended by this able and enlightened contributor to the *Edinburgh Review*, to call in question the fundamental principles of Phrenology. We are obliged, however, to add, that the article takes no notice of the labours of Drs Gall and Spurzheim,—an omission which, if voluntary on the part of the author, can tend only to the disparagement of his own reputation.

ARTICLE XVI.

THE LONDON ENCYCLOPÆDIA, PART 33, ARTICLE PHRENOLOGY.

EVERY person who sets about writing on any subject ought to ask himself before he begins, what is the object to be attained by the book or article in contemplation? This question is of so much importance, that, frequently, the same work may be pronounced good or bad according to the view which the reader may adopt of its object. The article before us affords a striking illustration of this proposition. If the proper object of it be to give a view of the arguments for and against the science, then it is a capital production; it fur-

nishes long quotations from the writings of the opponents, and even gleans the gossiping anecdotes that have been privately circulated against Phrenology; while, at the same time, it gives equally long extracts in answer from the writings of Drs Gall and Spurzheim, Dr Elliotson, and Mr Chenevix. These extracts are judiciously and impartially selected; the opponents are presented in their best aspect; and yet no disparagement is done to the advocates, for they are allowed to speak with equal efficacy. The author, moreover, informs us, that, in 1815, he was himself inimical to the science, and wrote against it in the *Eclectic Review*, and that now his leanings are rather in its favour. He still limits his approval, but, at the same time acquits Phrenology of immoral tendency. This, in short, is an excellent summary of the mere controversy.

But, on the other hand, if the object of such an article ought to be to lay a distinct account of Phrenology itself before the readers of the *Encyclopædia*, so that any one of its subscribers resident in a remote county of England, or in the colonies, who had read in reviews and newspapers many discussions about it, but who, in consequence of not enjoying access to extensive works or lectures on the subject, should desire to know something of the science itself, that he might form his own opinion of its merits; if, we say, it be the proper object of the article in the *Encyclopædia* to inform such a man, then the present is almost a total failure. It occupies 14 large pages, handsomely printed with double columns; and of all this space only one column and a quarter are devoted to the history of the science, and two columns and a half to the organs and their functions; even of these, one column is occupied with Dr Gall's German names, and Dr Spurzheim's reasons for inventing English ones with long and unusual terminations. The consequence is, that a reader who has been wearied to death with the controversy, who at length wishes to know what the debate has been about, and goes to this work for information, will find him-

self grievously disappointed. He will meet with the controversialists in their full ardour, and be furnished with the most formidable arguments and assertions *pro et con*; but he will obtain no satisfactory representation of Phrenology itself.

We very seriously regret this error of the author, for such it certainly appears to us to be. If he would place himself for a moment in the circumstances of his readers, it is probable that he would agree in our opinion. The decision of the abstract question of true or false, cannot be of very great interest to a man who is profoundly ignorant of what Phrenology is; and, on the other hand, every sensible person, if informed distinctly about the subject itself, will be more pleased with forming his own opinion, than by adopting that of any editor, however able and conscientious. It appears very difficult for most men to conceive, that it is of no very great moment to the world at large whether they as individuals think one way or another on any great topic of public discussion. On the contrary, each editor appears to imagine that his voice is to decide the question, and he introduces his opinion with as much solemnity, and gives it as many qualifications, as if he were speaking from a tribunal of absolute wisdom. The author before us is not altogether free from this imputation; he is too anxious about what shall be thought of himself for treating Phrenology with candour, and he is so much occupied with furnishing reasons for his decision, that he throws into the shade the substantial facts of the cause. With every respect for his talents and information, we can assure him from observation, that by professing the most unbounded belief, or the most thorough contempt, he could not have exerted half so much influence over the minds of his readers as he would have done, if he had only abridged one of the works which treat of the science, and reversed the distribution of his columns; namely, given to the subject twelve pages, and to the controversy two; and then left each individual to embrace or reject the theory according to the dictates of his own judgment.

We regret also that he has given currency to Mr Stone's misrepresentations in point of fact, without taking the trouble to refute them; for example, on p. 265 we read,—“Sir William Hamilton, in a lecture at the Edinburgh University, exhibited the *open crania* belonging to that museum, with a number of other specimens, and thereby demonstrated that these *sinuses*, which are very unequal in their extent and depth, affect frequently as many and often more than one-third of the principal phrenological organs.” Now, it is matter of notorious fact, known to two or three hundred persons who attended Sir William Hamilton's lecture, and it is explicitly printed in the Phrenological Journal, vol. IV. article III., that the skulls exhibited by Sir W. were not sawn open; and, on p. 386 of that volume, a letter appears from Mr Combe to Sir W. in these words:—“Many thanks for your polite attention about the skulls;” [Sir William offered Mr C. the use of the college collection for his lecture;] “but I am under the necessity of mentioning, *that unless I am permitted to saw open at least a dozen of them*, not selected on account of evident peculiarities, but taken at random, so as to afford a fair average, I shall be obliged to decline admitting them as evidence.” Sir William in answer said:—“The offer of being allowed to open any *three* skulls at your own choice, in order to manifest, not to verify, my measurements, is surely as good as twenty.” Mr Combe replied:—“I am really very much obliged by the great trouble you have taken; but, as I consider *sawing open* the only way to settle at once the questions of parallelism and extent of sinus, I am reluctantly obliged to forego the advantages of your offer, since Professor Jameson will *not permit the opening to take place.*”

Farther, in the article in question, we find Mr Stone's statement, that Mr Syme's collection of open skulls, used by Mr Combe in his lecture in answer to Sir William Hamilton, consisted of only *two and a half*, repeated, without the contradiction given by Mr Syme, that it consisted of *eight*. The editor, no doubt, within a parenthesis, expresses his own belief, that Mr Stone in this particular must be in error; but a very little inquiry would have enabled him distinctly to state the extent of the misrepresentation.

He quotes also Mr Stone's assertion:—“That, notwith-

“standing the great outcry that has been raised of the many evidences in favour of Phrenology, notwithstanding the zeal of its advocates, and their united perseverance, they have in this country only been enabled to concentrate within the pages of their leading works, (the Phrenological Transactions and Journal,) *“twenty-eight facts in support of their thirty-five organs;”* and he gives no direct contradiction to this flagrant absurdity.

We advert to these particulars only with the view of pointing out to future editors how much better they will execute their duty to their readers by giving an accurate account of Phrenology itself, than by encumbering their pages with controversial passages about it, which convey no idea of the subject, are grossly inaccurate, and must necessarily sink into oblivion whenever the question is determined either the one way or the other.

ARTICLE XVII.

KILMARNOCK PHRENOLOGICAL SOCIETY.

On the 28th ult. the Phrenological Society of Kilmarnock opened their monthly meetings for the season with a dinner in compliment to Mr Roger of the Turf Inn, one of their members, who has generously accommodated the Society since its formation with a place of meeting for the ordinary transaction of business. The Rev. George Lawson, president of the Society, in the chair, and the Rev. Adam Brown, the vice-president, croupier.

On the cloth being removed, the Rev. Chairman gave the usual public toasts; and, in coming more particularly to the business of the evening, he stated, in a short speech, that he had first been induced to attend to Phrenology, not so much from a thorough conviction of its truth, as from his being unable to see in it any thing hostile to religion or

morality; and that if true, it must necessarily unfold new and more correct and comprehensive views of the nature and constitution of *man*. Considered as a branch of natural knowledge, it could not fail to be of importance in its application to the study of theology, ethics, and legislation. He regretted, from the place he held in the Society, that he was not more intimately acquainted with the science; but he could unhesitatingly state, that the longer he attended to the subject, the stronger did the evidence of the truth of its doctrines appear, and the more deserving it seemed of diligent and accurate investigation. He concluded by giving the progress of Phrenology.

The Rev. Mr BROWN, in proposing the memory of Dr Gall, said,—“Mr President, you have just now expressed your strengthened convictions of the truth of Phrenology, and I must say what has produced these weighs powerfully on my mind. But, independent, Sir, of a conviction,—at least a *full* conviction of its truth,—yea, although it should turn out to be a mere bagatelle in itself, is it not of very great importance in its consequences? Has it not opened up the way to progress in other studies? To the anatomist and physiologist it surely must afford many facilities. Their system is beyond my sphere. I have never studied them properly. I have read a little in this way, it is true, merely for pleasure; but I can easily suppose, that the anatomist and the physiologist, if he is likewise a true Phrenologist, will excel in these branches of science. To the moral philosopher, I am sure, it gives a judicious and a far more simple, distinct, and rational division of the faculties or states of the human mind. By means of Phrenology, in short, the whole philosophy of the human mind rises in our view like open day. We can now account for many seeming inconsistencies, formerly unaccountable. The science is of so much importance, that I wonder why it should not have had an open field for its defence, and fair play. Why should

it be condemned ignorantly without trial? and why should ridicule, which is not the test of truth, be the only weapon lifted up against it? Those, then, who have observed its facts, and have unveiled and applied them,—those who have spent their strength and their lives in the advancement of the study,—command our regard. They have conferred a lasting benefit on mankind. I therefore beg leave, as you have clothed me with the honourable office of vice-president, to name one who has laid society under lasting obligations by his disinterested and painful exertions, as the founder and supporter of Phrenology. I give the memory of Dr Gall.

Mr A. Hood, surgeon.—Mr President,—I beg leave to crave a bumper, and at the same time to propose the health of a gentleman to whom Phrenology is much indebted. In naming Dr Spurzheim, I scarcely know how to speak of him in terms adequate to his merits. Early in life he became acquainted with Dr Gall, the great founder of the science; and, after attending his prelections for some years, in 1804 he became his colleague and fellow-labourer in the great work of observing and comparing cerebral development with functional manifestation. The grand discovery, however, had been made, and the locality of many of the organs ascertained; but much, very much remained to be done in the way of introducing philosophical arrangement and remodelling and correcting the nomenclature. In both these respects the genius of Dr Spurzheim was of the greatest importance to his colleague. To the large development of particular portions of the brain, with extraordinary functional manifestation, we are probably indebted for the discovery of Phrenology. Dr Gall made this discovery; but, in naming the organs thus discovered, he designated them rather by their functional abuse, than by their legitimate function in a natural healthy state of the organ. Hence he had an organ of Larceny or Theft, and an organ of Murder, which, when announced, excited much horror and de-

testation in the public mind, and brought much odium on the author and his system. To this subject, Dr Spurzheim applied himself with success. His nomenclature is much less objectionable, and is expressive of more correct and accurate views of the functions of the organs. Accordingly the organ of Murder is now known by the name of Destructiveness, and that of Theft by Acquisitiveness.

It was a great desideratum with Dr Gall to connect his discoveries, his facts, and observations, with anatomy and physiology; and here he received the most valuable assistance from his friend and colleague, Dr Spurzheim. They had observed, indeed, that the anatomy of the brain as taught in the schools was extremely faulty, and by no means unfolded its organic structure. The same observations had been made by several authors long prior to Drs Gall and Spurzheim, and some had set an example of a better mode of teaching and studying the structure of this important viscus. As early as 1709, the decussation of the fibres in the pyramidal bodies in the commencement of the spinal cord was accurately described by Mistichelli, and afterwards by Petit, Lieutaud, Santorini, and Winslow. Among the moderns, Sabatier, Boyer, Dumas, Bichat, and Chaussier, deny its existence. The subject was taken up by Drs Gall and Spurzheim; the dissections of Mistichelli verified; but they did not stop here; for the fibres constituting the pyramidal bodies were traced forwards, and observed to receive additions and connexions, and forming divisions prior to their termination in the anterior lobes of the brain, constituting the knowing and reflecting faculties. At their peripheral extremity these fibres are united by a fine kind of neurilema, and their extremities tipped with grey matter, in which no organic structure has been observed. In like manner, the olivary bodies were traced to the lateral lobes and coronal surface of the brain. The vermiform process was seen to constitute the originating fibres of the cerebellum. But I find it impossible to enter upon details; this

being a very crude sketch of what Drs Gall and Spurzheim did in conjunction for anatomy ; but their discoveries can be best appreciated by those who have been taught anatomy under the old system, and who have subsequently witnessed Dr Spurzheim's elegant and masterly dissection of the brain. To be thoroughly acquainted with what belongs peculiarly to each of these great men, it is necessary to read and study what they have written. But in all their labours, their leading principle was to *study structure in relation with function, and function in relation with structure* ; thus connecting their observations on cerebral development with anatomy and physiology. The physiologist can now proceed with security, keeping always the leading principle in view as a guide ; and the philosophy of the human mind, formerly so crude and inconsistent, has now become intelligible, rational, and interesting. Phrenologists in general, and those of our own country in particular, are under great obligations to Dr Spurzheim. He has not only enriched, improved, and corrected the science in various departments, but he is himself the discoverer of eight out of thirty-four organs and faculties now admitted. In the various departments of science to which Dr Spurzheim has directed his powerful and energetic mind he stands pre-eminent. But in its effects and remote consequences his greatness is principally of a moral and intellectual nature, and his merits will be more fully appreciated by the rising than the present generation. He is at present a public character,—his writings are known in every corner of the civilized world,—his name is enrolled in the annals of fame, and will descend to posterity with increasing lustre.—To the health and happiness of Dr Spurzheim.

Mr WEIR gave the health of Sir George Mackenzie, one of the first philosophers of this country who had the acuteness and discrimination to discover the importance of Phrenology in the explanation of all that respects taste and the

philosophy of the mind. Now, there is little merit in being a Phrenologist; but, when Sir George first stood forth an advocate of the system, candour and moral fortitude were indispensable requisites.

Mr Hood, in proposing the health of Mr George Combe, observed, that this gentleman's talents had been devoted with assiduity and success to the cause of Phrenology. His labours had been of signal advantage in disencumbering the system of Dr Gall of many crudities, which were great obstacles in the way of its favourable reception with the public. His taste and acuteness in metaphysics qualified him peculiarly for this undertaking. He has the merit, too, of being the first philosopher in this country who publicly entered on a vindication of the system. Independently of the powerful and vigorous efforts which he has occasionally made in repelling the attacks and refuting the arguments of the opponents of the new doctrines, I am not aware that he has left a single philosophical objection which has not been satisfactorily answered. But the various publications which have from time to time issued from his pen are the best evidence of what and how much he has done. His large work, *The System of Phrenology*, is an admirable digest of all the most important facts in the science which have been accumulated by the united labours of Drs Gall and Spurzheim. The invaluable acquisition which the philosophy of the mind has received from the discoveries of these distinguished foreigners has been fully appreciated by Mr Combe in all its magnitude. It is still impossible, perhaps, to estimate the influence which Phrenology may have in promoting happiness and improvements in the institutions of society; but that both are in the train of consequences, which must necessarily follow the general diffusion of the principles and doctrines of the science, is indisputable.

Under the influence of a strong impression of this kind, Mr Combe seems to have dictated his *work* on the *Constitution of Man*,—a work which the longer it is studied will be

the more admired for the sound and rational principles on which he advocates the advancement of human happiness. Notwithstanding what has been said of it in the way of criticism by some ingenious men, I am convinced that it is a work of great merit, and will be held in high estimation by every candid inquirer. It seems scarcely possible to conceive, that the book can be read with impartiality, or with the spirit in which it was written, without making the reader wiser and better. The refined tone of morality and the animated glow of philanthropy which pervade it, have secured him a high place in the first rank of moralists.

Mr ROGER gave the Phrenological Society of Edinburgh.

Mr CRAWFORD proposed the health of the Editor of the Phrenological Journal.

The Secretary being unavoidably absent, the Chairman gave the Kilmarnock Phrenological Society.

Mr MORA, in an eloquent and animated address, to the chair, concluded by giving the general diffusion of sound and useful philosophy.*

Mr H. gave Dr A. Combe, and eulogized his valuable contributions to the Phrenological Journal :

Dr OTO of Copenhagen :

Dr CALDWELL of Philadelphia.

Mr MORTON gave the memory of Mr Watt, who first suggested the formation of the Society.

Mr D. R. ANDREWS, in a neat and elegant speech, complimented the chair and the other founders of the Society, and gave the health of Mr Roger, who has gratuitously accommodated the Society with a place of meeting since its formation.

Mr PAXTON spoke at some length, and, in a fine vein of humour, concluded by proposing the health of Sir William Hamilton and the opponents of Phrenology, which drew forth a burst of universal applause.

* We are sorry that we cannot do justice to the speaker.

ARTICLE XVIII.

PROCEEDINGS OF THE PHRENOLOGICAL SOCIETY
OF EDINBURGH.

ON Thursday, 13th November, 1828, the Phrenological Society held its first meeting for the season. The President, Dr A. Combe, delivered the following address from the chair:—

“GENTLEMEN,—Eight sessions have now elapsed since the commencement of the Society, and when you are informed that you have this season been called together earlier than usual, on account of the accumulation of materials, you will have ample and pleasing assurance, that the interest taken in Phrenology is very far from being on the wane. And when you look at the donations which cover your table, and inquire whence they have come, you will find very unequivocal evidence, that, while Conscientiousness and Intellect remain constituent parts of the human mind, truth and science will ever have charms to recommend and defend them against all attacks both at home and abroad. We have now before us a very large donation from India; a very valuable donation of casts and documents from the United States of America; a skull and communication from Denmark; a skull from Behring's Straits, perhaps the most distant part of the habitable globe; four skulls from Switzerland; and, lastly, from Paris and from England we have various interesting publications, indicating a spread of knowledge and an amount of talent and of zeal, that cannot but be highly gratifying to every lover of truth, and consequently to every true Phrenologist.

“In addition to all these sources of satisfaction, we have also, I am glad to say, not only the offer, but the *ipsa corpora*, if I may so speak, of contributions both from members who have not hitherto been accustomed to come for-

ward, and also from strangers at a distance. This is a sign of the times which cannot be misinterpreted, and it is one which must be hailed with pleasure, especially by the older members of the Society, who, from the want of confidence or some other cause having prevented the younger from giving expression to their thoughts, were often obliged to take a greater and seemingly more invidious share in the Society's business than they would otherwise have done. The Society will, I am sure, benefit by and rejoice in the advantages which cannot fail to result from the application of fresh and vigorous minds to the further improvement of phrenological science.

"Since the Society separated, six months ago, we have gained many accessions, and Phrenology has gained many friends; but since that time also we have sustained a severe loss in the lamented death of our illustrious founder, Dr Gall,—a man whose merits as a discoverer and faithful interpreter of nature as far transcend my powers of expression as his labours transcend in value those of his little-minded and feeble detractors. I shall, therefore, not even attempt to characterize him, but only mention, that, looking forward to the event which is now past, and anxious that the first Phrenological Society should possess some direct and personal memorial of the first Phrenologist, I made repeated efforts last season to induce Dr Gall to write to the Society. This he was himself desirous of doing; and he delayed from day to day only, as he told Dr Fossati, that he might write very fully, and explain to us his ideas on some doubtful points, to which he wished us to direct our attention; but, unhappily, before he had time to execute his purpose, disease had laid its heavy hand upon him, and in six months more death had consigned him to the tomb. Disappointed in this attempt, I next endeavoured to obtain such particulars of his life, illness, and death, as I thought might interest the Society, and accordingly wrote to Dr Fossati, who attended him, expressing our deep regret at his de-

cease, and urging Dr F. to send us all the information which he could obtain; but, although a promise has been given, which will no doubt be fulfilled when other duties permit, as yet, I am sorry to say, nothing very satisfactory has been communicated.

"In a letter to Dr Fossati, I mentioned that the Society was desirous to possess a marble bust of Dr Gall, and requested him to transmit any prints or casts that might be useful in enabling one of our own members to make a faithful and accurate likeness of the original. In compliance with this, Dr Fossati has sent a medal, which is not more interesting for the strong resemblance which it presents of Dr Gall than for the occasion which gave it existence. It was executed in 1820 by M. Barre, an eminent artist in Paris, by order of Count Potosky, a rich Polish nobleman, who took this method of expressing his deep gratitude to Dr Gall, who had cured him of an old and dangerous malady, for which he had in vain consulted the best medical men in Paris. On one side of the medal is the head of Dr Gall, an admirable likeness; and on the other is Esculapius, standing at the bedside of the patient, chasing away with one hand the birds of darkness, and crushing a frog, the symbol of ignorance, under his right foot. Behind Esculapius is an altar, with a skull placed on it, to denote the particular kind of study to which Dr Gall was addicted. Near the couch are the arms of the count himself. This medal is very scarce, and, as a testimony honourable alike to Count Potosky and to Dr Gall, it is very valuable.

"Besides this, Dr Fossati mentions, that a marble bust of Dr Gall was executed last year by a Parisian artist, which, he says, cannot be excelled for fidelity and beauty. Copies of it in plaster are to be had in Paris for 30 francs. The Society will doubtless apply for one.

"Passing over for the present from necessity, rather than from inclination, a more detailed notice of our immortal founder, I may simply add, that in March last, at the con-

clusion of one of his lectures, Dr Gall was seized with a paralytic attack, from which he never perfectly recovered, and which ultimately carried him off, on 23d August, 1823, in the 72d year of his age; that his remains were followed to the grave by an immense concourse of friends and admirers, five of whom pronounced discourses over his grave, as is the custom in France on such occasions; that his death gave rise to a succession of eulogiums and attacks in the French newspapers that had scarcely ever been paralleled; but that public sentiment was warmly and loudly expressed in his favour. In proof of this, I may be allowed to quote a few lines of a letter lately received from a French friend, with whom I was intimate in Paris, but who is no Phrenologist, and whose testimony is therefore impartial. After speaking of the political relations of France, he adds, 'You will, I am sure, be more affected by the death of Dr Gall than by any political event. In truth, it is an immense loss to science. Whatever opinion we may form of the system of that illustrious man, it must be acknowledged that he has made an immense stride in the sciences of medicine and of man. You must have been satisfied with the homage paid to his memory by the side of his grave by whatever distinguished men Paris possesses. Nothing was wanting to his glory; not even the abuse and calumnies of our *devots de gazette*.'

"While we cannot but regret our loss, we have also much cause for gratitude. When we look to the untimely fate which too often cuts off the gifted and the excellent in genius and in disposition, almost at the outset of life, we can scarcely be too thankful that Dr Gall was left to us, during a long and active life, to bring his immortal discovery to a degree of perfection and stability which cannot fail to excite our surprise and admiration. In reading his works, we are absolutely overpowered by the extent, minuteness, and accuracy of his research over all animated nature, and we instinctively feel that his was no common mind, and that perhaps no one but himself could have borne up against the difficulties which at first beset him, or could have advanced with the same undeviating constancy in the only true path of

science, that of observation. We cannot be too thankful also, that if Dr. Gall is taken from us, his colleague and successor, Dr. Spurzheim, is still left to us in the enjoyment of full health and active usefulness, and is even now busied in the diffusion of a knowledge of man in the principal towns of the sister kingdom; in all of which yet visited he has been received with the kindest cordiality, and listened to by crowded audiences with infinite delight. To other causes of thankfulness in the appearance of friends in every quarter, I might direct your attention; but I have already detained you too long, and in now opening another session, can only express my hope and conviction that our difficulties are fast passing away, and that each succeeding year will bring us together under happier and happier auspices."

A report by the Phrenological Society of Washington, on the cases of four Spanish pirates, (Article III. of this Number,) was then read; and the following donations presented:—Skull of a chief of Chile, presented by Dr. Gillies to P. Neill, Esq. and by him to the Society.—Two pamphlets, a medal of Dr. Gall, and Broussais' *Eloge du Dr. Gall*, by Dr. Fossati of Paris.—Five skulls of Moors, four Gentoo skulls, three Patia skulls, three Armenian skulls, five Brahmin skulls, one unknown skull, and a bust of Sir G. S. Mackenzie, modelled by himself, by Sir G. S. Mackenzie, Bart. of Coull.—Cast of the skull of *James Scott*, executed for murder, by Sir James Gardiner, Bart.—An Iceland skull, by Dr. Hoppe, Copenhagen.—Two numbers Danish Phrenological Journal, by Dr. Otto, Copenhagen.—Phrenological Essay on Education, by Dr. G. C. Holland.—Skull from Icy Cape, Behring's Straits, brought home by A. Collis, Esq. surgeon of H.M.S. Blossom, and four Swiss skulls from Soleure, by Dr. A. Combe.

The following note from Sir G. S. Mackenzie, Bart. relative to the donation of skulls by him, was read:—"In presenting these skulls to the Phrenological Society, it is neces-

sary to state that they were procured at Madras, at the desire of my son, by a native, who assured him that he took them from the burying-places of the respective castes whose titles are marked on them. Whether this is to be relied on or not, the skulls are unquestionably native, and prove the general smallness of the Asiatic head, compared with the European. One has no name on it.

"There is a skull of a domestic boar in the box."

"G. S. MACKENZIE."

The Society met again (by order of the council) on Thursday 20th November, when the following papers were read:—Report of Correspondence between Professor Sewall of Washington and the Secretary of the Phrenological Society of that City, (No II. of the present Number).—Letter Dr Brereton of Washington to Mr George Combe.—Letter from Dr Spurzheim.—Case of Spectral Illusion, by Mr Levison of Hull.—Memory of Names impaired by a Fall on the Forehead.—Case of — *Macdonald*, the Associate of *Mary Mackinnon*, by Mr W. Scott.—Letter from Dr Hoppe.

NOTICES.

DR GALL died at Paris, on Friday 22d August, 1828. We refer to the address of the President of the Phrenological Society, p. 481, for the only particulars of which we are yet in possession. We are promised materials for a more detailed account, which we hope to give in our next Number.

Dr SPURZHEIM has lectured in Cheltenham and Birmingham to large audiences since our last publication.

Mr LEVISON of Hull received an invitation to lecture on Phrenology at Scarborough, which he accepted in August last. The senior magistrate politely offered him the use of the Town-Hall. He delivered a morning and an evening course. The audience increased at each succeeding lecture, and those who came to the first continued their attendance through the whole. All the medical men of the place attended, and are now decided Phrenologists. The audience amounted to between 70 and 80 in each class, besides private friends of Mr Levison. The following notice appeared in the Rockingham newspaper:—"Mr Levison is a man of considerable talent, and does not read his lectures, nor has he any prepared matter, but depends solely upon his natural genius. This we like in a lecturer. He discourses on the sciences in a highly-pleasant manner, making it clear to every understanding, and, being himself an enthusiast in Phrenology, excites the mind to ennobling views of its principles. This is the first step taken toward a public introduction of Phrenology into Scarborough; and we were pleased to observe a general interest evinced during the time of lecturing, and to see how anxiously the company examined the casts and proposed queries, after the initiatory portion had been delivered. The impression made upon the minds of those who attended the evening lecture (for then only we were present) appeared powerful, and the subsequent divisions of the course are looked forward to with lively delight."

Mr COMBE intends to deliver an elementary course of lectures in January next, for ladies and gentlemen.

Sir WILLIAM HAMILTON has not yet published his "Fictions." Our friend, who undertook to write a review of the controversy between him and Dr Spurzheim and Mr Combe, has fulfilled his promise, and we are now in possession of an article on that discussion. We have been entreated, however, by numerous readers, both in town and country, not to load our pages with any farther notice of that subject, until Sir William shall redeem his pledge by publishing his "Fictions." They assure us that the correspondence itself was to them devoid of interest, owing to the paltry nature of the objections urged in it. We yield to these solicitations, and postpone our animadversions until Sir William's work shall appear.

We have received a long controversy on Phrenology in the Hull newspapers in June, July, and August last, between Mentor,

Chirurgus, our friend Mr Levison, the Rev. James Bromley, "Pe-
 Pluralist," and a "Wesleyan Methodist;" but the topics have
 been so often discussed, and are so familiar to Phrenologists, that
 reckon any detailed notice of them unnecessary. The following "A
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 specimen of the eloquence of the opponents:—"Is it to be borne, that
 the tender affection which nourished our helpless infancy—and
 thousand times pressed us with rapturous fondness to the breast
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A notice of Dr Spurzheim on Education will appear in our next
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Erratum in the present Number. In article VII. "Practical
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THE
PHRENOLOGICAL JOURNAL.

No XX.

ARTICLE I.

OBSERVATIONS ON MENTAL DERANGEMENT, AND SOME
OF ITS CAUSES.*

(Read to the Phrenological Society by Dr A. Combe.)

MOLIERE, and many other very witty men, have made themselves merry at the expense of the medical profession, and have most successfully ridiculed the uncertainty of opinion and inconsistency of doctrine for which medicine has long been proverbial; but when their own lives have been in danger, most of these satirists have nevertheless had recourse to

* In submitting the following pages to the readers of the Phrenological Journal, the writer is perfectly aware that his observations would have found a more appropriate place in a medical journal, and their appearance here has actually been delayed for nearly a year, by an unwillingness to obtrude in a popular work what may be deemed too exclusively professional; but his excuse is, that the article, as originally written, was intended as a review of Dr Spurzheim's admirable work on Insanity, and was to have appeared last year in the January Number of a deservedly-esteemed cotemporary, the *Medico-Chirurgical Review*. But after the article was almost completed, the writer was informed by the Editor, that a change in his arrangements would prevent his publishing it, as he had at first proposed to do. The article having for that reason been refused a place in a journal which has all along been and still is friendly to Phrenology, it was not likely that it would have been received by any of the others which had always been hostile; and the question just came to be, whether it should be thrown aside altogether, or inserted, in a modified form, in the work where it now appears? The importance of the subject, its close relation to Phrenology, and the comparatively little advance which the profession has made beyond the public in its acquaintance with insanity, ultimately overcame all scruples, and determined the writer to develop the leading points more fully and connectedly

professional assistance, with an alacrity that testified to their serious belief that the medical art has at least a partial foundation in the nature of things, and that its professors are in possession of an extent of ascertained knowledge, which, if well applied, would give their patients a better chance for their lives than they would have had if left to themselves. The conclusion to be deduced from this, or the moral of the tale, is worthy of attention ; for it leads to important practical results. It is, that the inconsistency complained of does not arise from the absence of invariable and permanent principles, according to which the various functions of the human body are carried on with the same regularity and precision with which phenomena occur in other sciences, but springs entirely from our imperfect acquaintance with these principles, and with the numerous modifications which they undergo from the action of the many opposite influences to which the body of man is, in the course of life, exposed. In some maladies the operation of these laws is so broadly marked, that their traces cannot be obscured by any change of circumstances, and it is this evidence of their existence which draws forth the unwilling reliance of the scoffer when he becomes sick. Such, for example, is the principle which leads to the employment of depletion and starvation in violent inflammatory excitement. But in other instances their action is less decided in its cha-

than could have been done in a mere review, and, if necessary, to make a series of articles instead of one, should the interest felt in their appearance seem to him to justify the extension of his plan.

In thus dropping the title of Dr Spurzheim's book, the writer cannot forbear from offering his humble tribute to its merits, and adding, that to its pages, and to the other works of that gentleman, he holds himself indebted, directly or indirectly, for almost all the ideas which he has endeavoured to unfold in the present essay ; and he cannot refrain from expressing his conviction, that the world is more indebted to Dr Spurzheim for the late striking advance that has been made in our scientific acquaintance with insanity, than those who have been most conspicuously brought forward may be willing to admit, or the public be at present at all inclined to suspect. It would be foreign to his purpose to enter into this topic here, but justice will yet be done to Dr Spurzheim.

racter, although not less constant or invariable in itself, and in them the general laws which regulate the system appear to vary only because we know them so imperfectly as to be unable to determine their true nature. It is the contradictions into which opposite views of the latter have led different minds, that have thrown obloquy upon medicine, as an hypothetical or conjectural art, when it is in reality based upon laws as immutable as those which preside over the motions of inanimate bodies.

In pursuing medical inquiries, it is cheering to feel assured that we are not embarking on a sea necessarily over-spread with mists, and fogs, and icebergs, as is so often represented. The mental and bodily constitutions of man did not come from the hands of the Creator undefined or imperfect. All their functions are regulated by fixed and determinate laws, and have fixed and determinate relations to the objects by which they are surrounded, and these objects have also fixed and invariable qualities. The causes of disease, and the agents employed for their removal and prevention, having thus definite properties, and acting upon a system regulated by definite laws, must necessarily operate according to fixed and invariable principles; and in the discovery and appreciation of these, and of their relations to each other, will the progress of medicine consist. If this view be correct, then every new error into which we may fall, instead of deterring us from pursuing our investigations, becomes a new beacon to guide us past some of the dangers to which we were formerly exposed. Whereas, if medicine were an art without principles, permanent as Nature herself, its advancement would be as hopeless a task as ever attracted and deluded the ingenuity of man, and ought to be abandoned for ever, like the dreams of the alchymists and their searches after the elixir of life and the philosopher's stone.

A conviction that medicine rests upon fixed and permanent principles, which only require to be found out and applied to raise it to its proper place among the sciences, is no.

where more valuable than as applied to the subject of the diseased manifestations of mind,—an application to which, since the discovery of the true physiology of the brain by the immortal Gall, we are now fortunately competent. It is, for instance, an established principle in pathology, that every derangement of function is always accompanied by a disorder either in the structure, or in the mode of action of the organ which performs it; and without the removal or cure of which the function cannot be restored to its healthy state. Acting on the faith of this law of the animal economy, we almost instinctively, on being called to examine a patient, begin by finding out what functions are chiefly vitiated, and through them go back to the organs which execute them, and there, by local and other symptoms, seek the kind of disease which has caused the aberration of function; and in a great variety of cases, by following this procedure, we succeed perfectly in determining the seat, nature, and method of cure of the disease which we are called upon to treat.

But when we look to the notions which have long prevailed in regard to insanity, and which are even yet too frequently met with, we see a melancholy reverse of the picture. From ignorance, or want of confidence in the fact, that the principles of medicine are immutable and permanent in their operation, our predecessors were contented to look upon the disjointed phenomena of mental derangement as the inscrutable consequences of an affection of the immaterial principle of mind, or as a particular dispensation of Providence, which they could not be expected either to understand or to remedy; and, accordingly, while this view continued to influence their practice, all sorts of incongruous and barbarous measures were adopted against the miserable patients, and the short fit of frenzy was too often converted into permanent mania, or hopeless fatuity. While, had the law already referred to, of the constant connexion between the state of the organ and the mode of its function, been familiarly

known, and the universality of its application confided in, it would at once have led the medical observer to investigate the condition of the organ whose function it is to manifest the mental faculties, to look to it for the seat of the morbid action, and thence to determine its nature and treatment on rational, experimental, and consistent grounds. Phrenology has demonstrated that the brain is the organ in question, and the true pathology of insanity is therefore to be sought in the history of the various diseases to which the cerebral structure is liable. The practical elucidation of this truth will form the subject of the following pages.

Knowing nothing, and having no means of ever knowing any thing of the nature of mind, as it exists independent of and separate from the organization with which we observe it to be connected during life, we can only study the capacities and modes of action which it exhibits to us in its combined or compound state; and to attempt any thing beyond this would be not only unnecessary, but utterly useless labour. We cannot reach the principle of mind to modify its qualities or manner of being. We can reach it only as acting through the medium of and influenced by its material instruments, and consequently all attempts to improve its powers and to extend its limits must be conducted with a constant reference to the organic conditions under which it acts, otherwise they will to a certainty fail of success. During life, indeed, the closest relation obtains between the mode of action of the various mental powers and the condition of their respective organs, every change in the state of the one being always accompanied by a corresponding change in the state of the other. All the faculties of thought and of feeling are feeble and inefficient in infancy, not from any defect in the immaterial principle of mind, but simply from the imperfectly-developed condition of the organization which in this life is required for their adequate manifestation. Some animals see distinctly immediately after birth, but hear very imperfectly; others hear, but do not see; and others again

are almost insensible alike to sounds and to vision. Every body knows the explanation of these facts. In one animal, one organ of sense is early developed, and in another a different organ is first matured. And, in like manner, in infancy, some internal faculties, the organs of which are early developed, precede in maturity others, the organs of which are not fully developed till much later in life. In youth, the observing powers preponderate in energy and activity, and the corresponding cerebral organs bear a visible predominance over those of the reflecting faculties which come later to maturity ; thus demonstrating at every step the intimate connexion between the mode of action of every faculty and the condition of its own material organ.

If we look at the mind as a whole, we shall find it following the same rule of progression. In infancy the mental powers are feeble and vacillating in their exercise ; quick, variable, and active in youth, vigorous and enduring in manhood, and again deficient in energy and vivacity in old age, in exact correspondence to the progressive changes in the organization of the brain from that of very imperfect structure in infancy to that of progressive maturity and decay, as occurring successively in youth, in manhood, and in old age.

Not only, however, do the mental powers follow the regular and comparatively durable changes which age brings about in the condition of their respective organs, but they are also affected in an equally evident manner by every change, however slight, and of however short duration, to which the organization is subject, either from external or internal causes. The touch of a hair upon the skin, the falling of a single ray of light upon the eye, or of a single atmospheric pulse upon the ear, are sufficient to cause corresponding changes in the state of the mind. Sudden compression of the brain is well known to deprive the patient of all mental power ; and it has even happened again and again, that where an opening existed in consequence of a fracture

of the skull, by pressing the brain with the finger consciousness was destroyed, to be restored on the removal of the pressure; and the repetition of the experiment was attended with precisely the same results.

A morbid state of any part may be induced either by causes acting directly upon its function, or by causes immediately affecting the substance of which the part is composed. Thus inflammation of the eye may be excited either by stimulating its function by too much light; or by sand, or lime, or cold air coming in contact with its surface. The brain offers no exception to this rule; and it is proper to notice the fact, as it explains how derangements of the mental faculties came to be considered apart from their corporeal cause. One person, from a reverse of fortune, great affliction, disappointed love, or intense study, becomes insane, or falls into delirium, with all the symptoms of an affection of the brain; and another, from an injury, from a *coup de soleil*, or from intoxication, falls into the same state. The former presents a marked example of excitement of function inducing disease of the organ; and the latter is an instance of the same result being consequent upon a direct application to the part itself. And the true relation between the two states was not sooner perceived, because it was always forgotten that the function of the brain is to manifest the mind, and that in so far as the manifestations of the mental powers are concerned, the agency of the brain is as indispensable as if it were the mind itself.

The bearing of the above facts upon the subject of the imperfect or diseased manifestations of the mind will be sufficiently obvious. Hitherto a singular and unfortunate distinction, for which there is no real ground, has been made by medical men, as well as by the vulgar, between the morbid derangements of the external and those of the internal faculties of the mind. The organs of external sense having been long known, every disturbance of their functions has justly been ascribed to an affection of their material

organs, and the efforts of the physician have been directed to the discovery of the nature of the particular affection then existing; and by this the treatment has always been regulated. But when an internal faculty of feeling or of thinking has been deranged, instead of having followed the same rational course, and ascribed its aberration to an affection of its cerebral organ, we have hitherto generally contented ourselves with the simple but vague affirmation, that the mind was deranged, and have not cared to inquire what was the particular organic cause of the disturbance of function. And yet there is really no greater difference between the external and the internal faculties, as they are called, than between one external sense and another. All are equally powers of the mind, and differ only in having different functions to perform, and in each being connected with an apparatus fitted for its specific function. The mind requires an eye to enable it to see, because light is an external existence with which it must be connected; and it requires only a cerebral organ to feel the sentiment of justice, because justice is not an external quality, but a mental or internal relation. The mind requires an ear to enable it to hear, because the vibrations of the air are external existences with which it must be connected; and it requires only a cerebral organ to feel the sentiment of pity, because pity is not a quality of matter, but simply a mental state or relation. The organs of the five senses are therefore merely parts added to the other cerebral organs, in order to connect the faculties of Colour, Form, Tune, Size, Number, &c., with the external world; and the powers of Seeing, Hearing, Tasting, Touching, and Smelling, are neither more external, nor less intimate parts of the mind itself, than any other power, whether of thought or of feeling; and the well-being of the brain is alike necessary to the exercise of all. If then the manifestations of all the mental faculties in a state of health depend on the healthy condition of all their organs, external and internal, and a change in the state of the mind attends even the slightest alteration in that of the

brain, it follows that a morbid condition of the organ of mind must be attended with morbid manifestations, or, in other words, with mental derangement, and that, without the previous removal of this organic cause, the mental health can never be re-established.

The time has been, and, we fear, is scarcely yet gone by, when such a doctrine, however much recommended by observation, and enforced by experience, would have been denounced by the unthinking or prejudiced as dangerous to religion, and subversive of the principle of the immortality of the soul. It would have been, and indeed it is argued, that to trace the dependence of insanity upon a bodily cause, was to confound together mind and matter, and to teach that the brain was the mind, and thereby to destroy the strongest proof of the soul's immortality. But, happily for humanity, truth and reason are as imperishable as mind, and now that, under their influence, prejudices are fast giving way, it is more and more widely acknowledged, that it is the old and false doctrine of the *mind* being subject to disease which is justly chargeable with the apprehended danger; and that, if the immortality of the soul can be proved in any way by reason alone, it is only on the grounds which we are now advocating, and that a rational and safe theory of mental derangement can be successfully established. The relation which we have shown to exist between the state of the mind and the condition of its material organs, explains easily why the immaterial principle remaining essentially unchanged, the mind develops its powers as we advance from infancy to maturity, and again declines from maturity to old age; why it falls asleep in the night, or loses consciousness from a blow in the head; why its manifestations are disturbed by intoxication, or deranged by disease; why it is characterized in one by the weakness of idiocy, and in another by the strength of genius. And in the fact, that the mind never manifests itself in this world except through the instrumentality of corporeal organs, and that the condition of these organs influ-

ences the quality of the manifestations, we have an easy explanation of the origin of mental derangement, and of the possibility of its occurrence, without endangering the principle of mind. The mind *sees* through the medium of the eye just as it *thinks* or *feels* through the medium of the brain; and as changes in the condition of the eye deteriorate or destroy the power of vision without any affection of the principle of mind, the obvious inference follows, that in like manner may changes in the condition of the brain derange or destroy the power of feeling or of thinking, and yet the mind itself, or soul, remain essentially the same.

But if we refuse to admit the influence of the organization, and ascribe the varying mental states to variations in the immaterial principle, unconnected with any corresponding bodily cause, we at once abandon, in so doing, all the presumptive evidence even of the possibility of the soul's immortality, since there is in truth "no doctrine in the whole range of physical or metaphysical inquiry so well calculated to support the dreary desolating prospect of annihilation as that which attributes to MIND the liability to "SICKNESS,"* and to changes which, once begun, may terminate only in its death or actual destruction.

Mental derangement, then, properly speaking, is a disordered state of the functions of the brain, arising from some existing morbid action in that organ, which may or may not involve at the same time the functions and organs of the external senses, but which frequently exists without any such complication, and which must be remedied before the alienation can be removed. Ignorance of the physiology of the brain has alone prevented this great truth from being generally perceived and acted upon; but now at last, thanks to the genius, intrepidity, and unwearied industry of Dr Gall, this obstacle has been almost surmounted, and a light

* *Medico-Chirurgical Review*, May, 1828, p. 192.

thrown upon the subject by his discovery of Phrenology, which promises to lead to the most beneficial results, and which has already divested the subject of madness of much of its obscurity, and, let us hope, of some of its terrors. Years must no doubt pass on before our knowledge of the functions of the brain will be complete, and before an adequate conception can be formed of the advantages which will ultimately accrue to medical and moral science from their discovery; but the great principles are already firmly established, and already, by the simplicity of their application to the elucidation of the morbid states of the human mind, they give evidence of their foundation in truth, and of their incalculable superiority to the mere speculations and groundless theories which have so long usurped their place.

By constantly drawing our attention to the connexion subsisting between the power of manifesting every mental faculty, and the condition of its particular cerebral organ, Phrenology places derangements of the internal faculties in the same relation to the organic affection producing them in which physiology does the derangements of the five external senses. Sight is never impaired, nor hearing destroyed, unless the organs which execute these functions are diseased; and, in like manner, thought and feeling are never deranged, unless the cerebral organs by which they are manifested have undergone some morbid change. And as sight is injured by a great variety of morbid alterations in the eye or its nerves, so are the internal faculties of the mind deranged by a great variety of diseases affecting the brain. Even if we had not direct proof of the dependence of mental derangement on various cerebral affections of a different nature, the force of analogy is still so strong as of itself to establish the fact, and to satisfy the most sceptical inquirer that insanity is not a single and unvarying disease. Every affection to which an organ is liable may derange its function, and therefore disturbance of the functions of the brain may attend a great variety of different cerebral states, each characterized by its

own symptoms and requiring its own mode of treatment. The eye, for example, is the organ of vision, and any affection of the eye, *whatever its nature*, may derange its function, and, impair sight. The eye may be inflamed, or it may be distended with water, or opacity may cover its convex surface, or the optic nerve may be paralytic, and, as a consequence of *all* these states, impaired vision or blindness follow. Impaired or destroyed vision is therefore not a specific disease, but merely a proof or symptom of the existence of some affection having its seat in the organ of sight; the real nature of which must be determined by other means. The ear is the organ of hearing, and all affections, of whatever nature, which have it for their seat, may injure its function. The ear may be inflamed, or the tympanum may be ruptured, or the acoustic nerve may be paralytic, and, as a consequence, hearing be destroyed; also showing that impaired hearing and deafness are not diseases, but merely symptoms attending maladies which have their seat in the ear. The lungs are the organs of respiration, and all causes, of whatever nature, affecting them, may derange their function, and impede breathing. The lungs may be inflamed, or may be the seat of an extravasation of blood, or they may be compressed by water or air in the chest; and, as a consequence, in all these cases, respiration may be impeded; so that dyspnoea, or difficult breathing, is not a disease by itself, but merely a symptom attending diseases which have their seat in the lungs. And, in like manner, the brain is the organ of the mental faculties, and any affection, of whatever nature, having it for its seat, may disturb its function, or the mental manifestations. The brain may be inflamed, or it may be excited by wine, or compressed by water, or by a fracture, and, as a consequence, in all the mind be disturbed. Derangement of the mind, therefore, is not a specific disease, but is a symptom attending many different affections, which may agree only in the single point of having the brain for their seat.

Another point of resemblance between the brain and other

parts of the body may be mentioned more specifically. The eye becomes diseased from excessive exercise of its function; viz. looking too long on small objects, or in too bright a light; the ear from great noises; the lungs from too hurried breathing; and the stomach from too much food. The brain, in like manner, becomes diseased from over-exercise of its functions, from too long study, from too intense feeling, from too long-continued anxiety, &c., which are to it exactly what too much light is to the eye, or loud sounds are to the ear. This relation between the function and the organization is habitually too much overlooked, and a little repetition must therefore be excused in enforcing it.

Many of our readers may think that we are taking a great deal of trouble to prove what is either self-evident, or of very little value even when proved. But it is not so; for many eminent physicians have regarded madness as always the same disease, and either as altogether unconnected with corporeal illness, or as depending on abdominal derangement; and yet, were any physician to propose to treat disordered action of any other functions as independent of the state of the organs which executed them, his proposal would excite astonishment. Were any one, for example, to prescribe for *difficult breathing* without an attempt to discover the organic or pulmonary affection whence it originated; or for impaired vision, without examining what was the particular disease of the eye that gave rise to it, he would be regarded as disgracefully ignorant of the first principles of his profession; and yet this is precisely what has been done and recommended by those who have studied the pathology of the mental functions apart from that of their material organs, and have regarded insanity as always the same disease, and requiring the same medical treatment,—and who, when experience has presented it to their notice under widely-different aspects, arising from obviously different causes, and demanding opposite modes of treatment, having no clue to lead them back to the real difference of

disease or of organic affection, have contented themselves with expressing wonder and surprise at its Proteiform character, and at the mystery in which the operations of mind are enveloped.

But had the fundamental principle, that the brain is the organ of mind, and consequently the fact that insanity always depends on a corporeal and cerebral cause, been recognized and kept in view, it would have been at once perceived, that, as every departure from health in an organ must necessarily disturb its function in a greater or less degree, and as the function of the brain was to manifest the mind, mental derangement could not be a specific disease, but must be one of the effects of whatever morbid causes disturbed the action of that organ, and could therefore no more be considered as an individual disease than impeded respiration, impaired vision, or vitiated secretion of bile. And had the attention of the observer been closely directed to the study of the relations subsisting between the mental faculties and their cerebral organs, so many centuries could not have elapsed, and so little been added to our knowledge of a subject in which mankind at large is so nearly concerned. Had insanity been recognized to be a symptom of cerebral disease, the insane would never have been rejected and excluded from our sympathies as the detested of Heaven, nor would they ever have been tortured by the lash or the chain, or exposed to public derision. Had a glimmering of its true nature reached the public mind, we would as soon have thought of loading the gouty or the paralytic with reproaches and obloquy, and of curing them by the application of the bastinado, as of treating the maniac with the neglect and often positive cruelty which he once met with. The moment we know that madness is an effect of disease in the material organs with which the Creator has connected the principle of mind, and that to this infliction alone are to be ascribed the waywardness, violence, and impetuosity, which often characterize that state, our feelings towards

the unhappy patient, and our attempts at cure, are very different indeed from what they would be, were we still ignorant of its true nature.

Were the present a part of a regular medical treatise, it would next be proper to bring in the evidence of the *post mortem* examination of the bodies of the insane in support of our principal position of mental alienation being the result of disordered action of the brain ; but in an essay like this such a proceeding would be altogether out of place; and it may suffice to state, that almost all late observers, whose opportunities have been extensive, agree in affirming, that insanity very rarely exists for any length of time, without leaving some very visible traces of disease in the *en-cephalon* ; and that it is only when life has been cut short, while the attack is yet recent, that no unnatural appearance is to be perceived in the brain. No doubt, cases of great violence, and even of long duration, have occurred, in which no morbid alteration of structure could be detected after death ; but this does not seriously militate against the conclusion, because the same thing has been frequently met with in other organs of the body, whose functions have been so violently disturbed as even to have caused death, and which have yet presented on dissection no visible mark of disease ; and because, as is universally allowed, the structure of the brain is still too imperfectly understood for any one to pronounce with certainty that it is unchanged, when, after all, it may seem to us to be so, only from our unacquaintance with all its morbid aspects.

From what has been already said, it is evident, that to give *all* the proofs of mental alienation being in reality a symptom attendant on various affections of the brain, would be to give a complete history of its origin, symptoms, and cure ; as, either directly or incidentally, every thing to be mentioned under these heads affords additional evidence of the fact. Instead, therefore, of dwelling longer on this preliminary but fundamental point, I shall for the present hold

it as granted, and proceed at once to the subject-matter of these pages.

The affections of the brain which disturb the manifestations of the mind may be divided into two great classes; the *first* comprising those which are acute in their character, rapid in progress, and dangerous to life; and the *second* those which are chronic in their nature, slow in progress, and compatible with a prolonged existence. Of the first kind, fevers, phrenitis, hydrocephalus acutus, and apoplexy, and of the second the various affections which give rise to insanity, are familiar examples. In the former, which are attended by local symptoms of too great intensity to leave their seat for a moment in doubt, the derangement of the feelings and intellectual powers is universally and at once ascribed to morbid changes going on in the brain or organ of mind. But in the latter, where the local symptoms are not so severe, and where the disturbance of the mental operations is equally manifest, though sometimes different in character, the same connexion of the phenomena with their cause in the brain is frequently not only unperceived, but resolutely denied. As, however, it is of the utmost importance in practice to be aware of the relation subsisting between the two classes of cerebral affections, that the obscurities of the one may be relieved by the lights afforded by the other, and that our attention may be directed in both to the local cause of the disturbance of function, we shall keep the connexion in view throughout, and thus seek to advance the pathology of insanity in the same way as that of other diseases, particularly as, in chronic affections of most other organs, we have greatly improved, if not altogether derived our principles of treatment from observing the progress and means of cure of their acute diseases.

Having thus seen that mere disturbance of function is not a specific disease, but an effect of many different and often opposite affections of the organ which performs it, and that mental derangement is not a specific disease, but a symptom

of an existing cerebral affection, it follows that the terms *mania*, *melancholia*, *insanity*, *idiocy*, &c., ought to be entirely discarded as *names of diseases*, since their use serves to perpetuate the error, which has long been the bane of medicine; of supposing them really to belong to and to designate specific states, requiring in all cases a specific treatment: And in their place we ought to speak of the various diseases of the brain which disorder the mental functions or faculties; just as in the case of the lungs, instead of speaking of dyspnoea as a specific disease, we constantly go back to the local or organic affection; and speak of pneumonia, of pleuritis, of phthisis, or as we speak of ophthalmia, cataract, &c., and not of simple blindness or obscurity of vision, which, as a disturbance of function, must necessarily be common in a greater or less degree to all diseases affecting the eye, whatever their nature and whatever their causes.

It is quite true, that, in attempting to apply this principle to those affections of the brain which give rise to mental derangement; we shall at first, from the excess of our ignorance, make a very poor appearance; but, even in the attempt, there will be the superlative advantages of keeping the very limited extent of our knowledge constantly before our eyes, and of stimulating us to unremitting exertion in the only path calculated to improve or increase it; whereas it is not less true than melancholy, that the only use of our present nomenclature is to make us deceive ourselves; and rest satisfied with a word in the absence of an idea; for, as already hinted, the method generally pursued of naming the disease after the prominent symptom, without regard to the nature of the organic disease, lies at the root of all the confusion and contradiction that have encumbered the investigation of the cerebral affections productive of insanity; and we have unhappily only to look at the very last systematic work published in this country to find the most ample proof of our position. I allude to Dr Mason Good's *Study of Me-*

disseminated,--a book which, with all its imperfections, has met with the most favourable reception from the profession and the public, and the authority of which is become on that account the most necessary to dispute where its doctrines are, as in this case, assuredly unsound.

Phrenology proves the brain to be an aggregate of many distinct organs, each manifesting a distinct mental power. It proves that one or more of these organs may be injured or diseased, and their functions impeded or altered, without necessarily affecting the remainder; and thus explains how a man may be insane on one feeling or faculty, and sound on all the rest, and consequently how, when a different organ is diseased, the faculty or feeling that is deranged may be different, and the prominent symptoms be different, and yet the disease itself remain exactly of the same nature. Inflammation affecting the eye disturbs vision, and affecting the ear it disturbs *hearing*, because vision is the *function* of the one, and hearing is the *function* of the other; but still it is *inflammation* in both, and requires in both the same kind of treatment. Phrenology shows that, in like manner, morbid excitement of the cerebral organs of Combateness and Destructiveness may produce raving, violence, and fury; and morbid excitement of the organ of Cautiousness, fear, apprehension, despondency, and melancholy; not from any difference in the kind of excitement, but simply from the function of the one being to manifest the propensities first named, and from the function of the other being to manifest the feeling of caution; and that hence both cases may require the same medical treatment for their removal, modified only by the difference of function; and in so far it affords a simple and consistent explanation of all the various forms which insanity assumes, and leaves us free to observe with care the nature of the organic derangement on which each depends.

Widely different from this is the mode of proceeding of

those who ridicule the plurality of cerebral organs, and maintain the brain to be an unit; every part serving equally to manifest all the faculties. Unable to explain by this theory the multifarious character of mental affections, they are constrained to create a new disease for every change in the appearance of the mental symptoms, and, following the wide variety thus presented, they conjure up a list of mental diseases numerous and complicated enough to damp the ardour of the most diligent and determined student; and at the same time running so much into each other as to defy all attempts at discriminating or describing them. Dr Good's classification is an example of the utter inability of talent and industry to avoid falling into confusion and absurdity when not guided by sound principle, which in this instance could only have been supplied to him by that doctrine of the cerebral functions for which, in his ignorance of its nature, he has expressed so much contempt. The table, long as it is, is too instructive not to be given entire.

Dr Good first establishes the order *Pyramica*, diseases affecting the intellect, and this he divides into six genera:—

The *first* Genus is *Ephronia* or insanity, including two species, *Melancholia* and *Mania*.

2d Genus, *Empathema*, includes three species: 1. *Entonicum* or impassioned excitement; 2. *Atonicum*, impassioned depression; 3. *Imane*, herebrained passion.

The *first* species (*Entonicum*) is subdivided into six varieties: 1. *Latitiae*, ungovernable joy; 2. *Philautiae*, self-love, self-conceit; 3. *Superbia*, pride; 4. *Gloriae famia*, ambition; 5. *Inacundia*, anger; 6. *Zelotypia*, jealousy.

The *second* species, *Atonicum*, includes five varieties: 1. *Desiderii*, ungovernable love; 2. *Auri famia*, avarice; 3. *Anxietudinis*, anxiety; 4. *Mœroris*, heartache; 5. *Desperationis*, despondency.

The *third* species, *Imane*, has only one variety.

3d GENUS, Alusia, is divided into: 1. *Elatio*, sentimentalism, mental extravagance; 2. *Hypochondriasis*, low spirits.

The *first* species, *Elatio*, is divided into four varieties:

1. *Heroica*, chivalry, romantic gallantry; 2. *Facetosa*, crack-brained wit; 3. *Eostatica*, false inspiration; 4. *Fanatica*, fanaticism.

The *second* species, *Hypochondriasis*, into three varieties: 1. *Antalgica*, vapours; 2. *Pertosa*, weariness of life; 3. *Misanthropia*, misanthropy, spleen.

4th GENUS, Aphelxia, is divided into three species: 1. *Socors*, absence of mind; 2. *Intenta*, abstraction; 3. *Otiosa*, brown study.

The *second* species, or *Aphelxia Intenta*, is subdivided into two varieties: 1. *A pathemate*, from some ungovernable passion; 2. *A studio*, from intense study.

5th GENUS, Paroniria, is divided into: 1. *Ambulans*, sleep-walking; 2. *Loquens*, sleep-talking; 3. *Salax*, night-pollution.

6th GENUS, Moria, into: 1. *Imbecillis*, imbecility; 2. *Demens*, irrationality.

The *first* species, *Imbecillis*, is divided into four varieties: 1. *Stupiditas*; 2. *Amentia*, forgetfulness; 3. *Credulitas*; 4. *Inconstantia*.

The *second* is divided into three varieties: 1. *Stultitia*, folly, silliness; 2. *Larema*, dotage, superannuation; 3. *Anæa*, idiotism.

Here then we have the very formidable number of six genera, fifteen species, and twenty-seven varieties of mental diseases, each of course held to be different from the other, and to require some difference of treatment; and yet when, with the aid of Phrenology, we examine them a little more closely, we perceive that most of them are symptoms not peculiar to one form of disease, but common to many, and depending, not on different kinds of affections, but chiefly on the particular part of the brain which is in fault; and that, in short, they are symptoms which may change into others,

on even disappear entirely, and yet the disease remain active and unchanged. If the phrenological doctrine of the plurality of cerebral organs and mental faculties be admitted, we shall see at once the explanation of this. Inflammatory excitement of the organ of Self-esteem for instance, by exalting its natural function, will produce, according to its degree, Dr Good's two diseases, called "*Self-love*" and "*Ride*." The same inflammatory excitement, affecting and exalting the function of the organ of Love of Approbation, will give rise, according to its degree, to the two kinds called "*Gloria famis*," or "*Ambition*," and the "*Heroica Elatio*," or "*Chivalry*." That of the organ of Aquisitiveness will give the "*Auri famis*;" that of the organ of Cautionness, the "*audictudo*," "*error*," (*heartache*), "*despondency*," "*apours*," "*weariness of life*," and "*low spirits*," and so on: in all of these the character of the disease would be the same, viz. that of inflammatory excitement; and in all, consequently, however different in appearance, would the same general treatment be required, modified only to suit the diversity of function in each particular case. But then a similar exaggeration of function from over-activity of the organ may arise from states which are not inflammatory, and which consequently would require treatment of a different and often of an opposite kind; and therefore if, as Dr Good has done, we erect each such case into a distinct disease, and treat it accordingly, we shall inevitably run into wild and inextricable confusion, from which nothing but a true knowledge of the cerebral functions can ever protect us.

The natural method to avoid falling into error is then to investigate the chronic affections of the brain in the same way as we study the more rapid and acute. Viewing the delirium or mental derangement attending the latter in the light of a symptom, and a most important one in its indications, we make use of it and all other means to detect the nature of the organic affection, and by this last are guided in the application of our remedies. Let us follow the same course

with the mental aberration, which forms so striking a feature of the chronic affection, and ultimately our success will convince us that we have at last entered upon the right road to improvement. Instead, therefore, of erecting every form of insanity into a distinct disease, we shall examine the causes, symptoms, and mode of action of the remedies generally employed, and see whether they throw any light upon the subject; and shall begin with the *Causes*.

Causes of Mental Derangement.

There are very few persons in whom all parts of the body are equally proportioned, and in whom all the functions go on with that complete harmony of relative force and activity which constitutes the best health. In almost every one some organs are either in excess or in deficiency, indicating an undue predominance of some functions over others, and giving rise in the former case to a susceptibility of excitement, and in the latter to a corresponding depression of vital power, which places them almost on the brink of disease. The natural consequence of this state of the constitution is, that the same external causes do not always produce the same diseases, but, acting most powerfully on those organs which are, either in strength or in weakness, the farthest removed from the standard of healthy proportion, induce diseases, differing in their seat and in their nature according to the situation and condition of the disproportioned organs; and it is for this reason that we find the same physical cause, exposure to cold and wet, for example, give rise in one person to pneumonia, in another to consumption, in a third to diarrhoea, and in a fourth to ague or to croup. In investigating the causes of diseases; therefore, it is as necessary always to keep in view the peculiar qualities of the constitution to which the cause is applied, as the nature and mode of action of the cause itself.

When any organ, from predominance or weakness, or some peculiarity of structure, is constitutionally prone to dis-

case, it is, in medical language, correctly enough said to be *predisposed*; and the qualities which constitute the predisposition are called the *predisposing causes*, in apposition to the others, which are named the *exciting* or *occasional causes*. (The predisposing causes, therefore, first demand our attention.

.. An examination of the predisposing causes of any disease is necessary to enable us to understand its origin, its nature, and its treatment, including in the latter the means of its prevention. A knowledge of them is therefore highly useful in practice. When accurately known, they generally indicate the seat of the malady, as must at once be obvious on recollecting that a predisposition is a *local* condition or weakness of the part in which the morbid action is afterwards excited by the external or occasional cause; and unless the predisposing causes are found out, and removed, or modified, we can neither hope to prevent the accidental accession of the disease, nor expect to bring about a firm and permanent cure.

.. Insanity being in every instance the result of cerebral disorder, all its predisposing causes are, as might have been expected, such as indicate the existence of some peculiarity, either natural or acquired, in the constitution of the brain, which renders it more than usually susceptible of disease. The most frequent and the most powerful among these are, *first*, The transmission of a hereditary tendency from parents to children, producing in the latter an unusual susceptibility of the same maladies under which the parents have laboured. *Secondly*, Excess of endowment in the size of some organs of the brain, with corresponding excess of functional activity, bordering on and easily convertible into morbid excitement in the faculties which are manifested by them. *Thirdly*, Deficiency of organic endowment and consequent weakness of function, subjecting the manifestations of the mind to derangement from an opposite state to the former. And, *lastly*, A peculiar temperament or quality of constitution, rendering the whole nervous system highly active, and

prone to excessive and involuntary excitement. On each of these we shall offer a few observations.

First, Authors who differ on every other point, agree in acknowledging that a condition of the brain, rendering it unusually susceptible of those diseases which are attended by mental derangement, is hereditary; and this truth is recognised by the vulgar, (often the best judges in matters of observation), who speak of insanity being in the family or in the blood; and it is practically acted upon even by Life Assurance societies, who hold the occurrence of derangement in a family as an obstacle to insuring the life of an individual who is himself perfectly sane. By the hereditary transmission of insanity it is not meant that the actual malady is conveyed from parent to child, and that, after lying latent for some years, it will inevitably appear in the child, in whatever circumstances he may be placed. The meaning is simply, that some quality of brain is communicated to the offspring, rendering them more prone than other people to undergo cerebral disease, and thereby to become insane; and, in consequence of which, causes will produce mental derangement in them, which, in any one not so predisposed, would have proved perfectly harmless.

The testimony of almost universal experience establishes the hereditary transmission of a predisposition to mania as one of the most fruitful sources of that terrible disease. Pintel justly observes, that, when we remark in all places and in successive generations several members of certain families lapsing into insanity at the same period of life, without any adequate exciting cause, it becomes exceedingly difficult to dispute the influence of hereditary qualities; and it becomes, he adds, altogether impossible, when we know that the fact is incontestably proved, not only by popular observation, but by notes regularly taken in numerous public and private establishments, and by collections of cases published in France, in England, and in Germany, from which, if required, numerous and conclusive examples might easily be quoted. But it may be sufficient to add, that the predisposition, like

all other qualities of body and mind, becomes stronger in proportion to its previous duration and prevalence in the family, so that the disease attacks a greater number of the children where both parents are descended from tainted families, than where either parent is from a pure stock; and seemingly, for this reason, the hereditary predisposition is a more active cause of mental derangement in the higher classes, who intermarry more with each other than in the lower, who have a wider choice. Thus, out of 321 female lunatics in the Salpêtrière of Paris, 105 were ascertained to belong to families in which madness already existed; while, out of 364 of the higher classes, 150, or *more than one-half*, were in this predicament. Dr Burrows is still more decided, and affirms, that he clearly ascertained the existence of a hereditary predisposition in *six-sevenths* of all his patients in private practice. These results deserve every attention on the part of the philanthropic and enlightened physician.

The operation of hereditary tendencies is well exhibited in the families of parents who have become insane from accidental causes without any previous predisposition. The children born *prior* to the existence of the disease in the parent remain as safe from its attack as those of parents who never have been affected; while those born *subsequent* to that time, and who may be thus supposed to have inherited the impaired constitution of their progenitor, are observed to be much more liable to its invasion than untainted children. And when madness does show itself in the offspring, it is generally at the same age and in the same form in which it appeared in the parent.

Nearly allied to the above in its mode of operation as a predisposing cause is the condition of the mother during gestation, which has often a striking effect on the future mental health and constitution of the offspring. M. Esquirol has had many opportunities of noticing this in his practice; and he tells us, that for this reason it is often in the maternal womb that we are to look for the true cause, not only of

imbecility, but also of the different kinds of mania. . . He observes, that, during the agitated periods of the French Revolution, many ladies then pregnant, and whose minds were kept constantly on the stretch by the anxiety and alarm inseparable from the epoch in which they lived, and whose nervous systems were thereby rendered irritable in the highest degree compatible with sanity, were afterwards delivered of children whose brains and nervous systems had been similarly affected to such a degree by the state of the parents, that in future life, as children, they were subject to spasms, convulsions, and other nervous affections, and in youth to madness, imbecility, or dementia, almost without any exciting cause. The extent to which the temporary state of the mother during gestation may influence the whole future life of the child may be conceived from a single fact, recorded by the same author. . . A pregnant woman, otherwise healthy, was greatly alarmed and terrified by the threats of her husband when in a state of intoxication. She was afterwards delivered, at the usual time, of a very delicate child. . . (The child had, however, been so much affected by its mother's agitation, that up to the age of eighteen it continued subject to panic terrors, and then became completely maniacal.

. . . When we see the offspring of consumptive parents afterwards displaying the same defective formation of thorax, the same susceptibility of cold, and the same difficulty of sustained vigorous respiration that distinguished their parents, we say at once that their lungs are constitutionally weak, and that they will require every care to preserve them from becoming consumptive ; and, in every instance of hereditary transmission of disease, we say that the children are born with a peculiar weakness in that part in which the affection has its seat. In like manner, we ought never to forget that, when insanity runs in a family, the primary cause is a *peculiar constitution of the brain* ; and that it is not a defect in the immaterial principle of mind, but a defect in the brain through which the mind operates, that is thus inherited from

the parent. From losing sight of this relation of the mind to the condition of its material organ, the most lamentable consequences have resulted, and will continue to follow, so long as the true cause of insanity is overlooked.

The second class of innate and predisposing causes of insanity is the excessive proportion which some organs bear to the rest. Health and a good constitution arise from an equal balance between all the parts and functions of the body; because whenever any part predominates too much, it is accompanied by a corresponding excess of energy and activity of function, which is easily excited to disease; and when, on the other hand, any part is too little developed, it is attended with a weakness and inactivity of function that predispose it to diseases of an opposite kind. This observation is applicable in a remarkable degree to the brain; for the disproportionate development of its organs to each other is in reality a strong predisposing cause of insanity, and has been substantially acknowledged as such by authors in almost every age.

It is true, that it is only among later writers that we find the proposition expressed in these words, but the oldest authors state what is exactly equivalent to it. By much observation, and the collection of overwhelming proofs, Dr. Gall has demonstrated, that the various fundamental faculties of the mind operate through the medium of distinct cerebral organs, and that the power of manifesting each bears an exact proportion, *ceteris paribus*, to the size of its own organ or part of the brain; and consequently, if this relation be considered as established, intensity of function becomes a measure or index of size of organ exactly as the latter is of the former, and the expression of the one quantity becomes exactly equivalent to that of the other. So that, supposing the laws of nature to be the same now that they have been in times past, whenever we find it remarked by any one unacquainted with Phrenology, that any mental power or feeling existed in great energy, and formed a principal feature

in the character, we are quite entitled to hold, that the corresponding cerebral organ through which it manifested itself was in equal excess, and therefore disproportioned in size to the rest.

Viewing, accordingly, as every observant Phrenologist must necessarily do, the mention of the preponderance of function as equivalent to that of the preponderance of organic development, I regard the following passages, from M. Esquirol's excellent work "*On the Passions, considered as Causes, &c. of Mental Alienation*," as very conclusive evidence in proof of irregular or disproportionate development of the different organs of the brain being a powerful predisposing cause of cerebral disease, and consequently of insanity. "Almost all the insane committed to my care," says M. E. "had offered some irregularities in their functions, in their intellectual faculties, in their affections or feelings, BEFORE becoming insane, and that often from their earliest infancy. Some had been distinguished for "*excessive pride*," (excessive predominance of the organ of Self-esteem;) "others for *great irascibility*," (predominance of Combativeness and Destructiveness;) "some for frequent "*melancholy*," (predominance of Cautiousness;) "others "for a *ridiculous levity*," (defective Cautiousness, predominant Hope, and Love of Approbation;) "some for a *de-solating instability* for receiving instruction," (defective Firmness and Individuality;) "others for an *obstinate ap-plication* to whatever they undertook," (predominant Firmness;) "others, again, were *peevish, discontented, fearful, timid, and irresolute*," (excessive predominance of Cautiousness, and defective Combativeness and Firmness.) And, as if still more clearly to fix the cerebral seat of insanity, he goes on to say, that "most of them had suffered from nervous diseases,—the women from convulsions or hysterical spasms, and the men from cramps, palpitations, or palsy; with these primitive or acquired dispositions, nothing more was wanting, except some moral affection, to determine the

"*explosion of furious mania, or the deepest melancholy.*" To the Phrenologist nothing can be more striking and instructive than the above exposition; not only does it show the brain to be the seat of insanity, but every line of it points to the disproportion of the different parts of the brain to each other as the most remarkable feature in the constitution of those thus declared to be predisposed to the invasion of cerebral disease. To the Phrenologist, the excessive pride, the great irascibility, the frequent melancholy, the ridiculous levity, the desolating instability, the obstinate application, and the timid and discontented peevishness, speak of excessive preponderance of some cerebral parts, and defective size of others, as plainly as if he saw them with his eyes. In the constitutional proneness to incessant and energetic action, which predominance of any organ naturally gives; and in "*the primitive and acquired disposition*" thence resulting, the Phrenologist sees a very abundant explanation why "no thing is then wanting, except some moral affection, to determine the explosion" of mania, by exalting the already inordinate action beyond the limits of health. In the same constitutional excess of one organ over the rest, he sees also the reason why poets and men of great but partial genius are proverbially subject to mental derangement. In them, the organs of the few faculties which constitute their genius are in excess; while too often those of the sentiments and intellectual powers, which ought to regulate the activity of the former, are, at the same time, deficient; and this discordant combination being quickened in its movements and in its excitability by that constitutional activity, which is itself an element of genius, it is no wonder that trivial disappointments and vexations of mind so frequently end in the production of cerebral disorder and mental alienation.

In thus affirming, that the disproportionate development of one or more of the cerebral organs, and, consequently, peculiarities of mental character, predispose to cerebral disease, on account of the facility with which the peculiar over-ac-

tivity of the brain may be carried the length of morbid action, I must not be understood as affirming, that, in every lunatic, the brain will be found irregularly developed; for the reverse is often the fact. Every part of the body, and every part of the brain, may become diseased, whatever is its form, size, or proportion to the rest; and in hereditary insanity especially this is very often observed; but, in the same way as a narrow chest indicates susceptibility of pulmonary complaints, do one form and size of head indicate, *ceteris paribus*, a greater susceptibility of insanity than others. This, however, is very different from asserting that a particular form of head *always* accompanies insanity, an assertion erroneously attributed by Pinel to Gall and Spurzheim, and which that author takes much needless trouble to refute. As a general rule, the most active and predominant organ will be most prone to morbid excitement; but this does not always hold; and nobody is better aware of this than De Spurzheim himself. In his work on insanity, Dr S. states distinctly, that although the greater number of lunatics from pride have the organ of Self-esteem very large in proportion to the others, yet it does not by any means follow, that all those who have the same organ largely developed are to become insane through pride, or that all those who have it small are secure from its derangement; for every organ, he repeats, whatever its size, may become diseased.

The influence of predominant development in giving a predisposition to disease in the organ is very manifest on comparing a number of monomaniacs, or patients deranged on one point, with each other; for, as a general rule, the deranged faculty, or feeling, will be found to correspond with the most highly developed organ; and no one who has taken any trouble to observe can have failed to notice the coincidence. Even in general mania, I have almost invariably found the mental disorder taking its character from the predominant organs. As illustrations of this principle, Dr

Call was in the habit of showing the skull of a man in whom the cerebellum was enormously large, and the chief feature of whose alienation was to believe himself to be the husband of six wives; and he also possessed the skull of a woman in whom the organ of Philoprogenitiveness was extremely large, and, who, in her raving, fancied herself pregnant with five children. Dr. Spitzheim mentions having seen many similar cases; and I have myself observed several, both in the Salpêtrière of Paris, and in the hospitals of this country; and, even in acute cerebral disease, I have, in several instances, seen the consequent mental affection exist in an exaggeration of the character indicated by the predominant organ. But, although this is the general rule, it must not be forgotten that a small organ may be in a state of morbid activity when a larger one is actual; and that a large organ may be in a state of atony, and its function be altogether in abeyance, as happens daily with the brain, considered as a whole, in the opposite states of delirium and dementia.

The effect alone of predisposing causes is *degraded* development; and consequent debility of function is one or more organs, rendering them unable to withstand any casual excitement or forced action into which they may be thrown. So efficient, indeed, is this as a predisposing condition, that in many cases idiosyncrasy flows from it alone, independent of any actual disease. Numerous examples are given, by authors, of full-grown idiots, with brains not larger than those of infants, and in whom there was no other mark of disease to account for the imbecility. In every instance, that whose degenerative state of the brain is merely sufficiently developed to raise the individual a little above palpable imbecility, he may pass through boyhood without remark or suspicion of his true state; and yet, on arriving at maturity, when all the faculties ought to be in their vigour, his friends will be surprised to find that the mind is in reality so limited as to be quite oppressed by the ordinary details of business, which, if persevered in, soon sap the little reason originally

possessed. This kind of predisposition, however, as will be apparent from its nature, leads more frequently to idiocy and imbecility than to any of the forms of proper mania.

Lastly, Certain temperaments predispose more than others to those forms of cerebral disease which are attended by insanity. The purely lymphatic are rarely the victims of mental derangement. The sanguine and the nervous, both of whom are endowed with great acuteness and vivacity of feeling, or irritability of nervous fibre, are perhaps the least capable of withstanding the action of any continued exciting cause. But the subject of temperament is so closely connected with that of hereditary descent, that it is unnecessary to add any thing to what has been already said on the latter in the preceding pages.

Other predisposing causes are generally mentioned, such as age, sex, profession, &c.; but, as almost all of them may be resolved into extreme exercise of one or more of the cerebral organs to the neglect of the rest, it is unnecessary to consider them here, at least in detail. For instance, the middle period of life is more fertile in the production of mental derangement, only because it is then that the brain is in its highest state of activity, and then the mind is most agitated by violent and tumultuous passions. It is then that love, fame, wealth, pride, &c. take possession of the mind, and, by their continued excitement, lead to cerebral disease. The female sex, again, predisposes to insanity, in common with all other diseases of the nervous system, because in the female the feelings are more acute, and external resources are more limited. And a sedentary and literary life predisposes to cerebral affections, and consequently to mania; for the same reason that it keeps the brain in an undue and permanent state of activity, convertible from the slightest cause into a state of morbid excitement.

I have already mentioned, that a strong affinity exists between the causes of acute diseases of the brain and of those cerebral affections which permanently derange the

manifestations of the mind; but, as might be expected *a priori*, this relation is much more remarkable between the direct exciting than between the predisposing causes. Hereditary descent, for instance, has much less influence in the production of an acute disease, like phrenitis, than in the production of mental derangement, and for this obvious reason; acute diseases come on suddenly from strong exciting causes, —they run their course rapidly, and terminate in a very limited time, either in the perfect restoration of health, or in the extinction of life. During their continuance, the patient exercises all his functions with difficulty or pain; and for that of procreation he is totally unfit; so that none of his offspring can date their existence from such a state of his system. When the disease is over, if the recovery is complete, the constitution is unimpaired, because the affection has been of too short duration materially to affect the general organization. But chronic diseases, like those which produce insanity, are very different. They come on slowly, from the continued action of often trifling causes operating upon a pre-existing predisposition; they run their course slowly; and it is frequently only at the end of years that they terminate in health or in death. During their continuance the patient executes his other functions with little or no impediment; but his constitution being then thoroughly impregnated, as it were, with the morbid action, its influence extends over every function, and consequently is transmitted to children then or afterwards produced.

That this is the true theory of hereditary susceptibility of disease is moreover apparent, from the fact already mentioned, that, in accidental cases of madness, children born *before* the insanity of the parent are not more subject to its attacks than children born of parents who have never been so affected. If, therefore, acute diseases are less frequently hereditary than chronic, it is not from any exception being made in their instance to an invariable law of nature, but simply from their duration being so short as not to contami-

interest of Tragedy. It is a maxim with critics, that the sorrows and distresses of humble life and of ordinary characters are beneath the dignity of Tragedy, and that it is only when these calamities overtake the great, the powerful, and the illustrious, that they possess that importance which renders them fit subjects for the tragic muse; and hence Tragedy in all ages has been conversant only, or chiefly, with the crimes and the woes of kings and heroes; personages of royal estate, or whose birth or achievements have raised them to a rank equal to royalty. From this it would appear that *Veneration* is an essential element in the feelings which Tragedy is intended to gratify;—and the truth of this is exemplified in many instances, where the strongest and the deepest feelings are excited by the distresses of persons of lower rank. When such subjects are dramatized, they may be highly pathetic and interesting as moral productions, but they are not proper Tragedies, and it has seldom been attempted to give them the name.

I have said, that all the powers and feelings of our nature are addressed and exercised by tragic representations, and it is almost unnecessary to say that the lowest as well as the highest of these feelings are so addressed by it. Crimes and distresses are its subjects. Crimes proceed from unregulated passion and misdirected feeling, and in their turn excite passion and feeling in others. It is the business of the tragic writer to show up the workings and combinations of these in all their darkest, deepest, wildest intensity; but yet in the very torrent, tempest, and whirlwind of passion, he must ever be on his guard that he “o’erstep not the modesty of nature.” Nature, in short, human nature, the primitive feelings and affections of which are ever the same, though their combinations are infinitely various, is the true model after which the tragic poet is rigorously bound to work, and from which he must never depart a single hair’s-breadth. He must avoid exaggeration and caricature; for

It has generally been held that the great, if not the sole elements of Tragedy, are pity and terror. These are no doubt essential requisites, but they are by no means the only nor even the principal feelings concerned. They are, in fact, only accessories to the main purpose of tragic representation; which in all cases is, or ought to be, moral instruction; but, as being necessary for the purpose of bringing home that instruction to the mind with the most powerful effect, the means have been sometimes mistaken for the end. This will become more apparent if we take the aid of Phrenology to trace the feelings and powers which are addressed and exercised on seeing a Tragedy. These, if we take the matter in the largest view, comprehend, in fact, all the powers and feelings of our nature. Every faculty is addressed and exercised in its turn. The feelings, as in all other cases, are addressed through the medium of the knowing and reflecting faculties. Music, painting, and poetry, in this case, combine with the fascinations of beauty and the grace and dignity of action to render the representations of the theatre attractive. But these are only the appendages and externals, the mere embroidery of the robe of gorgeous Tragedy. The faculties here addressed are the senses, the lower faculties of *Form, Colour, Time, Tune, Imitation, and Ideality*. The composition, the plot, the characters, and the language, engage a higher set of faculties, the superior powers of the intellect, all of which require and receive their own peculiar gratification. The feelings next come to be affected, and it is but an imperfect Tragedy in which any one of these is left ungratified. The domestic, social, and kindly affections are of course more or less interested in all that concerns our fellow-men, particularly when youth and beauty, helpless age, or confiding innocence, are involved in unmerited distress;—but the domestic and the social feelings alone—*Philoprogenitiveness, Adhesiveness, or even Benevolence*—are not sufficient of themselves to complete the fullest and the highest

interest of Tragedy. It is a maxim with critics, that the sorrows and distresses of humble life and of ordinary characters are beneath the dignity of Tragedy, and that it is only when these calamities overtake the great, the powerful, and the illustrious, that they possess that importance which renders them fit subjects for the tragic muse; and hence Tragedy in all ages has been conversant only, or chiefly, with the crimes and the woes of kings and heroes; personages of royal estate, or whose birth or achievements have raised them to a rank equal to royalty. From this it would appear that *Veneration* is an essential element in the feelings which Tragedy is intended to gratify;—and the truth of this is exemplified in many instances, where the strongest and the deepest feelings are excited by the distresses of persons of lower rank. When such subjects are dramatized, they may be highly pathetic and interesting as moral productions, but they are not proper Tragedies, and it has seldom been attempted to give them the name.

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that revolts at once the understanding and the feelings of his auditors; but a still less pardonable fault is feebleness, the least portion of which ensures his inevitable condemnation. Vigour of delineation is essential to the production either of sympathy or antipathy,* and to one or other of these must be referred all the stronger feelings excited by a Tragedy. The distresses of the innocent characters excite the one,—the crimes of the guilty rouse and exasperate the other. Our indignation rises at every instance of fraud and cruelty, particularly if it is successful, though but for a time. While we weep for the oppressed, we are not satisfied with barren lamentation. *Benevolence* itself, the sweetest, the mildest, and the milkieat of the feelings,—and *Hope*, that ever expects that every thing will result in good, and that virtue in the end will achieve its own happiness and that of the world,—both are offended and distressed by the appearance of triumphant villany, and desire its downfall. But this is more particularly true of the sentiment of *Justice*, to which any instance of successful crime is in the last degree obnoxious and abhorrent. It is thus quite consistent with these higher feelings, according to their natural and instinctive operation, that *Combativeness*, *Destructiveness*, *Secretiveness*, and *Cautiousness*, and the other lower, and by themselves antisocial propensities, be employed for the punishment, the removal,—and if that removal can be accomplished by no other means,—the ruin, destruction, and death of the guilty.

It thus appears that all the feelings are addressed and all the faculties are exercised by a properly-constructed Tragedy; but this must be taken under some limitations. It is true, that all the faculties and feelings are exercised and gratified; but we are not from thence to conclude that they are all exercised and gratified in the highest possible degree.

* Sympathy, it is known to Phrenologists, is the accordant,—antipathy the discordant affection, of the propensities and sentiments.

The higher sentiments, *Benevolence, Hope, Veneration, and Justice*, and many of the lower, indeed all the tender and social feelings, are necessarily offended by crime, and some of them taken singly are even offended by the punishment of crime. But as discords are admitted even in the most elaborate music to increase the effect of harmony, so the degree of offence offered to those finer sensibilities in the state of the fictitious distresses of Tragedy only seems to give an additional zest to the luxury of feeling. The distress which we know to be fictitious, and to be the mere semblance and imitation of distress, excites without deeply wounding Benevolence, and leaves us quite at leisure to note and to admire the beauty of the acting and the closeness and accuracy of the imitation,—the art that can produce the true energy of passion, or the genuine tones and accents of despair. The sympathy which these excite in our bosoms is, even at the highest, of a very harmless and inoffensive kind, seldom passing the boundaries of pleasing emotion, and never, except in the first impressions of very susceptible and inexperienced minds, rising to any positive degree of pain.

While, then, it is admitted, that all the higher and finer sentiments are addressed and exercised by Tragedy; and while we lay it down as a first principle, that the very end and object of all Tragedy is to show the punishment which awaits the perpetration of crime, we are not to tie down the poet so rigidly to the laws of justice as to require in all cases the distribution of punishment and reward in exact proportion to the crimes or the virtues of his characters. Poetical justice is not a virtue of such immaculate perfection. We do not expect here the justice of the golden, but that of the iron age. It is often of that wild, untamed, and imperfectly regulated kind that is found in the barbarism or the savage. If, as is generally the case, the story is taken from the records of a rude and remote period, all that we can or ought to expect is, that the characters should act agreeably to their own notions of right and wrong; and if their ac-

tions accord with this rule, we stop not to inquire how far they square with the views of a more enlightened age, or the precepts of Christian morality.

Another point to be observed in considering the nature and limits of poetical justice is, that it is more frequently concerned in punishing the bad than in rewarding the good. It may be said to reverse the maxim of our modern tribunals, that it is better that ten guilty persons should escape than that one innocent should suffer. The maxim, on the contrary, of that stern justice which inspires the genius of Tragedy is, that crime must be punished, though that punishment should involve the criminal and the victim,—the oppressor and destroyer with the oppressed and deceived,—the prime-mover and instigator with his hapless and almost unconscious agents,—in one promiscuous ruin. There is reason in this; for it is what we see happen in the natural course of events. It is one of the lamentable consequences of crime, that these consequences do not solely recoil upon the perpetrator; its baleful effects often extend far beyond his immediate sphere of action, and even beyond the utmost scope of his most malicious intentions. The demons of wrath and vengeance, once let loose, burst forth with a violence which defies control. These passions have been compared to the letting out of water, which at first flows in a scanty stream, but anon, enlarging its opening, rushes forth in a mighty flood, tearing up and overwhelming the strongest bulwarks, and mocking the feeble efforts of the hand that attempts to stem its violence. Such is the natural course of human passion, and such being the elements with which he works, we are not to expect that the tragic poet is to control and limit that, the very nature and property of which is to be illimitable and uncontrollable. It is his object to represent human nature, not in a state of unattained perfection, of Utopian or philosophical tranquillity, but as it has existed in the world, exhibiting that mixture of good and evil qualities, of kind and destructive, social and malignant feelings,

--that medley of strength and weakness, of high-soaring ambition and sublime self-denial and abasement;—of arrogance lifting itself to the stars, and sensuality dragging us downwards into the mire. In the midst of all these contradictions, and a thousand more, it is the business of the poet to preserve the true lineaments and features of *man as he is*,—a creature imperfect even in his best and most improved and exalted condition, and in the very worst not altogether bereft of every trace of goodness. Two errors are to be avoided,—*first*, the attempt to exhibit a faultless monster that the world ne'er saw; or, *secondly*, a demon in human shape, who possesses nothing of man but the outside. From either of these the mind turns away with incredulity and distaste as from something on the reality of which we have no firm reliance. The one appears to us like a breathing statue speaking sentences; the other affects us like a serpent or a toad, inspiring only hatred and horror. With neither can we have any sympathy, for neither possesses the characteristics of our mixed and anomalous nature.

The very imperfection of that justice, the manifestation of which is the true object and noblest end of Tragedy, is of itself more fruitful in sources of reflection, and affords more abundant food for "sweet and bitter fancy," than if strict and impartial justice were distributed with an unerring hand. In this case, there could be no room either for pity or terror; for if none suffered but the guilty, pity would be ill bestowed on those who are only treated according to their deserts; and we need be under no apprehension about the good, as we would know that, whatever might possibly happen, they are ultimately safe. In such case there could be no more interest in a Tragedy than in an ordinary novel from the Minerva press, where, notwithstanding all the temporary distresses of the hero and heroine, we are well assured that, in the last chapter, they will be comfortably married, live many years in wealth and prosperity, and have a fine family of thriving children. It is the very uncertainty that hangs

over their fate, and the possibility of some great and unavoidable calamity overtaking them; that constitutes nine tenths of the interest we feel in the good and the virtuous characters of a Tragedy. We rejoice, no doubt, when they escape the snares that are laid for them; but, even when they fall into these, justice is sometimes *so far* satisfied with observing that their fall has been occasioned by some deviation, however slight, from the straight and open path of virtue and innocence. Such reflections are often expressed in Tragedy with a sublimity and force that is rarely equalled in the writings of professed and systematic moralists. Take this example from Douglas. (Lady Randolph is confessing that she had deceived her father.)

" Frantic with rage, the Baron drew his sword,
 " And question'd me. Alone, forsaken, faint,
 " Kneeling beneath his sword, falt'ring I took
 " An oath equivocal, that I ne'er would
 " Wed one of Douglas' name.—Sincerity,
 " Thou first of virtues, let no mortal leave
 " Thy onward path! although the earth should gape,
 " And from the gulf of hell destruction cry,
 " To take dissimulation's winding way—
 " Anna. Alas! how few of women's fearful kind
 " Durst own a truth so hardy?
 " Lady R. The first truth
 " Is easiest to avow. This moral learn,
 " This precious moral, from my tragic tale.
 " —In a few days the dreadful tidings came,
 " That Douglas and my brother both were slain.
 " My lord! my life! my husband! Mighty God!
 " What had I done to merit such affliction?
 " —In the first days
 " Of my distracting grief I found myself
 " As ladies wish to be who love their lords.
 " But who durst tell my father? The good priest
 " Who join'd our hands, my brother's ancient tutor,
 " With his loved Malcolm in the battle fell.—
 " They two alone were privy to our marriage," &c.

Such cases occur in the world sometimes, and they afford admirable subjects for the moral muse of Tragedy. In cases where we have not even this to take hold of, and where a character, bright and pure as the unavoidable frailties

of humanity will allow, falls into immediate calamity, through no fault; perhaps in consequence of some heroic act of virtue, all our consolation arises, as in domestic life, (for such things also happen in actual life,) in reflecting that they are gone where no such evils intrude, and where the wicked cease from troubling.

These last observations will show that Tragedy, in its best and most effective state, not merely addresses and excites the senses, the knowing and imaginative faculties, and all the classes of the feelings,—the social, the benevolent, the destructive, the ambitious, and the moral,—but that it also affords a field for the largest and most disinterested exercise of the reflective powers, and contributes by such exercise to render us *sadder* and better men. When, in addition to this, we consider the art which it requires to conceive, devise, and arrange the materials for such a composition,—the various conditions to be observed, and difficulties to be overcome in forming a work at all approaching perfection,—and the various arts, and the various minds which must unite in its execution, to the production of one great and harmonious effect,—we shall not hesitate to pronounce a great and a powerfully affecting Tragedy, to be in its way the triumph of human genius; and we shall perhaps cease to wonder why a composition of such surpassing difficulty should be so rarely, so very rarely, executed in all points as it ought to be.

England possesses only one tragic poet. Need I name that poet's name? She never had and probably never will have another. If you ask who stands second to him, you may be told, that there is none second,—none that can appear in the same hemisphere. At the approach of that sun of poetry the minor stars shine with remote and feeble lustre. He knew nature in all its most obvious, in all its darkest and most mysterious details. No object was too high or too grovelling for his notice;—no colours too dazzling, and no shades too deep for his eagle and all-penetrat-

ing eye. From the monarch to the beggar, and from the throne to the dunghill, all was to him equally familiar; and what he conceived strongly, he drew forcibly, with a hand and an eye equally unerring. Kings, princes, and peers, publicans and tapsters, prelates and ruffians, ladies, nurses, and waiting-maids, saints and sinners, may all in his pages see themselves reflected as in a glass. He is the only writer of dramas who obeys his own invaluable precept, and "holds the unerring mirror up to nature;—shows Virtue her own feature, Scorn his own image, and the very age and body of the time his form and pressure."

Shakespeare dealt in no vague generalities. All his characters are individual men and women, all appearing as distinctly marked with their own peculiarities, and as easily distinguished by us from all others as if they were in the list of our intimate acquaintance. Of all his characters, none exhibits a greater number of these distinguishing peculiarities than Hamlet; none has been so little understood, or has afforded so much room for controversy among the critics. Phrenology alone affords a clue for unravelling the mystery, and we accordingly propose subjecting it to the test of phrenological principles. We have seen an able and an eloquent article on the subject in a contemporary journal.* It is the production evidently of a scholar and a poet; but it does not satisfy us; for though in many points correct, it wants the clear and steady light of Phrenology to give it certainty and distinctness.

"Goethe, in his *Wilhelm Meister*," observes this writer, "*burns*, as the children say at hide and seek; but when about as it were to lay hands on the truth, he is blown diverse innumerable leagues. 'It is clear to me,' he says, 'that Shakspeare's intention was to exhibit the effects of a great action imposed as a duty upon a mind too feeble for its accomplishment. Here is an oak tree planted in a china vase, proper only to receive the most delicate flowers. The roots strike out, and the vessel flies to pieces. A pure, noble, highly-moral disposition, but without

* Blackwood's Magazine.

"that energy of soul which constitutes the hero, sinks under a load which it can neither support nor resolve to abandon. All his obligations are sacred to him, but this alone exceeds his powers. An impossibility is required at his hands, not attainable in itself, but that which is so to him. Observe how he turns, shifts, advances, and recedes; how he is constantly reminding himself of his great commission, which he nevertheless in the end seems almost entirely to lose sight of, and this without recovering his former tranquillity."

"Now, surely," says our anonymous critic, "feebleness of mind, the fragility of a china vase, lack of power and energy, are not the characteristics of Hamlet. So far from it, he is represented as fearless almost above the strength of humanity. He does not 'set his life at a pin's fee.' He converses unshaken with what the stoutest warriors have trembled to think upon; ~~free~~ with a visitant from darkness, and gathers unwonted vigour from the pangs of death. Nor in all his musings, all the many-coloured mazes of his thoughts, is there any thing of female softness, any thing of amiable weakness. His anguish is stern and masculine, stubbornly self-possessed, above the kind relief of sighs, tears, and soothing pity. The very style of his more serious discourses is more austere, philosophic, I had almost said prosaic, than that of any other character in Shakespeare. It is not the weight and magnitude, the danger and difficulty of the deed imposed as a duty that weighs upon his soul, and enervates the sinews of his moral being, but the preternatural contradiction involved in the duty itself,—the irregular means through which the duty is promulgated and known."

It must, I think, be obvious to a Phrenologist, who attentively considers the subject, that, in the passages above quoted, the German novelist is right, and the English commentator is wrong. That the task of revenging his father's murder was one for which Hamlet (as delineated by Shakespeare) was in a great degree unfit, seems perfectly clear; that this unfitness proceeds from a certain weakness of mind seems also clear; but here a Phrenologist will make a distinction. Weakness of mind may either be *general*, where all the faculties and feelings are feeble and sluggish in their operation, or *partial*, where many of them are in full power and activity, easily excited, and manifesting themselves when excited with energy and force, but where, from a defect in some important power, and perhaps an excessive endowment of others, the whole does not work with

that steadiness and effect that might otherwise be expected. This is an important distinction, and it affords the true key to the character of Hamlet. No one will ever impute to that character the fault of general weakness. His affections are strong, his intellect of a superior order, his moral feelings acutely sensitive, and in general properly directed; his Combativeness and Destructiveness not deficient; and the desire to employ them, under a deep sense of duty, in avenging the foul and most unnatural murder of his father, seems to be deep and passionate. What then occasions his *vacillation*, his doubting, hesitating, procrastinating spirit, missing opportunities, and letting go by "the important acting of the dread command" which had been laid upon him? A Phrenologist would answer,—*Excessive caution and deficient firmness.*

Adhesiveness and the kindly affections are strongly marked in Hamlet's character. His veneration and love towards his father are boundless; and the grief in which, at the opening of the play, we see him plunged for his untimely loss, is proportionally severe. His distress is aggravated in no small degree by the shameful and hasty marriage of his mother, by which his feelings of honourable pride, as well as his sense of virtue and propriety, (arising from a good endowment of the *sentiments*, joined to *Self-esteem* and *Love of Approbation*,) are grievously offended. The acute understanding, cultivated taste, and fine imagination which he is represented as possessing, (*Intellect* and *Ideality*,) only tend to increase his misery, and to magnify every circumstance connected with it; while the whole is aggravated by that natural repugnance, and dislike approaching to loathing, which a fine and sensitive mind feels towards one that is coarse and vulgar, and which breaks out, even before he is made acquainted with the extent of his crimes, towards his wicked, brutal, cowardly, and hypocritical uncle. His situation altogether seems to press so sore upon his spirit,—his best affections being crushed and lacerated,—his feelings outraged,—his

hopes blighted and withered, that the effect of the whole seems to be to disgust him with the world and with life; and in the very first scene we find him speculating on the lawfulness of self-destruction.

The appearance of "his father's spirit in arms" rouses him from this state of mental prostration. The dreadful secret imparted by this mysterious visitant, to him, and to him alone, stirs him up at first to a perfect flame of indignation and vengeance. His first aspiration is, to "sweep to his revenge,"—"with wings as swift as meditation or the thoughts of love." But the moment of excitement being past, we observe no symptoms of haste in his proceedings. Having sworn his companions to secrecy, and enjoined them to conceal, and, if possible, forget what they had seen, he almost appears to forget it himself. He lays no plan for obtaining the revenge he desires; and his only object seems to be, by feigning a certain degree of madness, to avoid suspicion, and avert danger from himself.

It has been justly observed, that Hamlet is represented throughout, more as an instrument than an agent. His conduct seems not so much the result of design as of circumstances; the only thing that looks like a plan is his contrivance about the play; and it ends in nothing. He is tossed like a shuttlecock from Denmark to England, and from England to Denmark. He narrowly escapes murder by treacherous assassins,—death by pirates,—and drowning by shipwreck. He talks to be sure of plans to counterwork the malicious designs of his enemies, and boasts, "it shall go hard but he will delve one yard below their mines and blow them to the moon,"—but still he does nothing; and at the last we see the death of Claudius brought about, not by any plot of Hamlet's, but in consequence of his own wicked contrivances, which, by strict poetical justice, are made to recoil upon himself. All this is not done without design, and one design of Shakspeare has probably been, to exhibit a character weak in nothing but in firmness,—and to

when this single defect renders all the other qualities, which he possesses in full vigour and perfection, in a great measure useless.

Who can doubt, that having the "motive and the cue of passion" that Hamlet had, and with his advantages of birth, education, high talent, and popularity, a firm and intrepid character like young Fortinbras or Laertes would in no long time have organized a party in the state,—collected troops,—stormed the palace,—dragged the usurper from the throne to the scaffold,—and having thus nobly avenged his father's death in the face of the world, taken the place and dignity which were his rightful inheritance, and set himself to follow his father's example and emulate his kingly virtues. But for all this, the deficient *Firmness*, and over-active *Caution* of Hamlet, render him unfit; and his time is spent in vain complainings and fruitless resolutions, while the revenge he seeks occurs at last by chance in the private and obscure scuffling of a fencing-match. Of his unsuitness for any great undertaking,—his indolent, inactive, and irresolute disposition,—he seems from the first to have been conscious; as in the conclusion of the soliloquy after his first interview with the Ghost,—

"The time is out of joint—O cursed spite,

"That ever I was born to set it right!"

In many other speeches throughout the play he confesses and laments the same weakness. The whole soliloquy beginning with "O what a rogue and peasant slave am I!" is just a commentary upon this text. He even carries this sense of his infirmity so far as to accuse himself of what certainly did not attach to him, pusillanimity and cowardice.—"Am I a coward?" he says,

"Who calls me villain? breaks my pate across?

"Plucks off my beard, and blows it in my face?

"Tweaks me by the nose, gives me the lie i' the throat,

"As deep as to the lungs? Who does me this?

"Ha!

"Why, I should take it: for it cannot be

"But I am pigeon-liver'd and lack gall

"To make oppression bitter; or, ere this,
 "I should have fatted all the region kites
 "With this slave's offal."——

His want of firmness and over-caution are again alluded to, and most phrenologically described in the speech after his meeting with the army of Fortinbras;

"Whether it be
 "Bestial oblivion, or some craven scruple,
 "Or thinking too precisely on th' event,—
 "(A thought which quartered hath but one part wisdom,
 "And even three parts coward,)—I do not know,
 "Why yet I live to say—*this thing's to do*,
 "Sith I have cause, and will, and strength, and means
 "To do't."

There are various other outbreakings of a spirit dissatisfied with itself, labouring under a burden which it is unable to bear; having a hard and terrible duty to perform, without resolution to perform it. In his soliloquies he repeats to himself all the motives to revenge, and endeavours to screw up his flagging resolution to the sticking place; but some doubt or difficulty intervening serves as a pretext to put off the evil hour; to defer to a more convenient season the execution of that which, although he believes it to be just and necessary, still shocks and distresses his milder feelings. In this frame of mind, the idea suggests itself, that the apparition which he had seen may be a delusion of the powers of darkness,—the information which it had given him a falsehood,—and, consequently, that his acting upon that information might lead to a grievous crime, and to his own everlasting perdition. To clear this *doubt*, he employs the stratagem of the play, in order to "catch the conscience of the king." The experiment succeeds. The king's guilt is apparent, and every scruple as to the honesty of the ghost, or the possibility of the king's blamelessness, is removed. Yet still he lingers; and though in a mood, as he himself says, "to drink hot blood, and do such business as the bitter day would quake to look on," yet, when an opportunity of executing his purpose presents itself, he again

hesitates,—again a scruple occurs,—and again he lets the season for action go by. This, I think, is the true explanation of the speech, when he comes upon the wicked, half-repentant murderer at his prayers :

“ Now I might do it pat—now he is praying,” &c.

This speech has been represented as exhibiting a refinement in revenge and cruelty, as if he were not content with depriving his enemy of life, unless he can at the same time ensure his everlasting damnation ; and Johnson says it is too horrible to read or to be uttered. But from the whole tenor of the character it seems obvious to me, that Hamlet is not to be understood here in the literal meaning of the words he uses, and that the scruple here started is nothing but a pretext, such as his mind seems fertile in suggesting, to delay the performance of an act from which his nature recoils. It might indeed appear to a less scrupulous mind than Hamlet's, that stabbing a man behind his back, when he is alone, defenceless, and engaged in his devotions, is more like the act of a cowardly assassin than of a son seeking an honourable revenge for his father's murder. This may be supposed to have been in his mind, and to have held his hand from giving the fatal stroke ; and what he does utter, like some of the ebullitions of sarcasm and misanthropy which he gives vent to in his feigned madness, may only be put on, like them, to cover the bitterness of a wounded spirit. I would rather believe, at least, that this is the case, than that Shakspeare attributed to Hamlet, whom he certainly means to represent as amiable and virtuous, the serious feeling of a sentiment so repugnant to every good mind, and so much at variance with all the rest of his character.

Much has been said on the subject of Hamlet's madness, and it has been doubted whether Shakspeare intended to represent it as feigned or real. To me it appears that a certain original distemper of mind is indicated under the assumed insanity. The cynical and sarcastic turn of his re-

manners and replies seem to have a deeper source than a merely personated madness. It is not misanthropy; for the misanthrope regards the whole human race as utterly worthless and base; but Hamlet acknowledges goodness when he finds it. He reveres the memory of his father,—admires the high honour, and “spirit with divine ambition puffed,” of young Fortinbras;—his soul is linked by the bonds of unalterable and discriminating affection to that of his friend Horatio, whom he wears, as he tells him, “in his heart’s core; yea, in his heart of heart;” and though he makes Polonius the butt of his ridicule, and treats with a lofty scorn the interested attentions of Rosencrantz and Guildenstern, his behaviour to the players, the officers of the watch, and others with whom he comes in contact, is marked with a courtesy and even kindness becoming a prince and a gentleman. Nevertheless, his whole discourse shows an utter distaste and weariness of the world and of life. Every thing appears to him “stale, flat, and unprofitable.” This goodly frame, the earth; this brave canopy, the air; the firmament fretted with golden fire; man, the beauty and paragon of nature, delight not him. The Aged Preacher bears not more deeply impressed on his soul, that every thing under the sun is vanity and vexation of spirit. There is here portrayed a state of mind not attributable to a single cause. Physical must combine with moral causes to produce it. Grief for the loss of one parent,—shame for the misconduct of another,—disappointed hopes,—the horror of crimes, deep, aggravated, and unattonable,—and a sense of intolerable injury,—raised to their keenest action by supernatural events, and communications from the world of spirits,—revenge,—not so much sought as a gratification as imposed as a duty, and the necessity of concealing feelings and designs with which the o’erfraught heart is ready to burst,—render his mind a perfect chaos, and, to speak as a physiologist, may easily be supposed to have interrupted the healthful action of the brain, and disturbed or destroyed the soothing and sa-

latory operation of the cerebral and nervous influence. When to all this we add that peculiar weakness of which we have spoken, arising from deficient *firmness*, and over-active *caution*, suggesting unnecessary doubts and careless apprehensions, we have here every circumstance united which is known as having a tendency to produce that state of mind which may be designated as "physical melancholy." It is one of the symptoms of this malady, that it is attended by indolence and indisposition to exertion. The patient becomes inactive and solitary,—"forgoes his usual custom of exercise,"—avoids society, and all that could counteract the morbid tendency of his complaint, and broods in secret over everything that can increase it. Thus far, the apparent disease of mind in Hamlet is real; and to this it is only necessary to add a slight sprinkling of assumed eccentricity, to produce in the by-standers the belief of his being insane.

Johnson thinks that no adequate cause appears for the feigning of madness by Hamlet; but, with submission, there appears as much reason for it in his case as in that of the elder Brutus. The object of the one as of the other seems obviously to be, to conceal his own designs, and to disarm the suspicions of others. Under this guise of folly, Hamlet gives vent to many caustic and bitter reflections on the worthlessness and vanity of life. These break out, as it were, unconsciously; and, notwithstanding their eccentricity, are often deeply affecting, as evincing the utter desolation of soul,—the state of abused and lacerated feeling,—of which they are the natural overflowings. The desire to be relieved of life, as of a burden too grievous to be borne, seems ever present to him. For instance,—in his conversation with Polonius, when the latter asks if he will walk out of the air, he answers,—“Into my grave?” And when Polonius, with all the ceremony of an old courtier, says,—“My lord, I humbly take my leave of you.”—“You cannot, sir, take from me any thing I would more willingly part withal,—except my life—except my life.”

He is continually reflecting on death, and seems to delight in presenting it in the most humiliating form. The dissolution of the body into its kindred earth is a favourite topic, from which he does not diverge to the more elevating prospect of the soul's immortal destiny. When questioned after the closet-scene what is become of Polonius, he answers,—
 "At supper,—not where he eats, but where he is eaten. A certain convocation of politic worms are e'en at him.
 "Your worm is your only emperor for diet. We fat all creatures else to fat us, and we fat ourselves for worms."
 In the same strain are his meditations at Ophelia's grave. His inquiry of the grave-digger,—“How long will a man lie i' the earth ere he rot?”—his speculation on the dust of Alexander stopping a beer-barrel;—his moralising on the skull of Yorick, the king his father's jester,—looking on the orbless eye-holes and rotten cheek-bones, and reflecting, that
 “here had hung those lips which he had kissed he knew not how oft;”—his exclamation;—“Go, get you to my lady's chamber, and tell her, let her paint an inch thick, to this complexion must she come!”—and when touching his last moments, he wrests the poisoned cup from the hand of Horatio, and entreats him to live, that he may “report him and his cause aright,”—he does it, not as conferring a benefit, but as imploring a sacrifice:—

“Absent thee from felicity a while,
 “And in this harsh world draw thy breath with pain
 “To tell my story.”

All this is too uniform and consistent to be assumed, and may satisfy us that there is here a disordered and inharmonious state of the feelings, deeper than the distress that commonly springs from moral causes, and that the true character of the state of mind represented is not to be understood without taking into account the dark current of melancholy

that runs below, as well as the lighter movements of assumed coquetry that play upon the surface.

His treatment of Ophelia has also, I think, not been thoroughly understood. We are to suppose, that, before his misfortunes, the gay and gallant prince had loved this beautiful, innocent, and ill-starred maiden, and that his love had met with a return. He had made her "tenders of his affection,"—had given her love-tokens,—and with them "words of such sweet breath as made the gifts more rich." What may have been his views we know not; but we are to suppose, in the absence of all indication to the contrary, that they were honourable. There is not a word which he utters which leads to the suspicion of libertinism. Now, granting it so, what might we suppose the feelings of Hamlet on a subject of this kind;—after his father's death,—his mother's marriage;—his uncle's elevation to the throne;—had cast him down from the pinnacle of greatness to the depth of wretchedness and misfortune?—When, to finish his calamities, the terrible truth is divulged to him, and a command, which, in his case, must be held as of the most sacred character, to revenge the murder of his father by the death of his uncle;—could we suppose him, under circumstances like these, to be in any frame of mind for love? After his interview with the Ghost, he vows to give up every other object, and devote himself, body and soul, to the prosecution of his command:

"Yea, from the table of my memory
 "I'll wipe away all trivial fond records,
 "All saws of books, all forms, all pressures past,
 "And thy commandment all alone shall live
 "Within the book and volume of my brain,
 "Unmix'd with basest flatter."

In this state of feeling he meets with Ophelia. He had just before been debating the dreadful alternative,—“to be—or
 “not to be,”—as if the world and all which it contained afforded nothing which could render life tolerable, and that he would gladly have taken refuge from its miseries even in

annihilation. What is more natural, under circumstances and with feelings such as these, than that he should endeavour, if possible, to loosen the ties with which, in better and more auspicious times, he had endeavoured to attach to him the kind and unsuspecting heart of the gentle Ophelia? He had a work to perform in which she could take no part,—a deed to do which must be revolting to her gentle nature,—a secret was labouring in his mind which must not be imparted to her,—and one which now to him superseded every other consideration. Love was to him now a dream, or a tale that is told,—possessing no charms,—offering no prospect of happiness. His views, his prospects, his feelings, had undergone an entire revolution; and the problem is, how shall he most easily shake off the encumbrance which love must have proved to his future proceedings,—so as least to compromise his own honour, and do the least violence to the feelings of his mistress? With this view he endeavours to break off the connexion under cover of his feigned madness. The wild and incoherent starts of pretended insanity were well adapted for the purpose; and, if considered in this view, his affected levity,—his sarcastic reflections against her sex,—his accusations of universal depravity against his own,—his confession of innumerable faults and offences,—his exhortations to celibacy,—and enjoining her to “go to a nunnery,” rather than to become a “breeder of sinners,”—instead of bearing the aspect, as at first sight they do, of heartless cruelty and unfeeling injustice, appear, on the contrary, to be fraught with as much of kindness and consideration as in his circumstances he could possibly evince. As Ophelia believes him to be mad, she is spared the pain of attributing to him the guilt of broken vows and wilful desertion. His malady may, it is to be supposed, lead to her endeavouring to smother a feeling which could tend to no desirable consequence. So far with regard to the person to whom the words are addressed. As regards Hamlet himself, this shaking off of a first love,—a sincere and deep-rooted pas-

sion under the adopted guise of madness, is, by the anonymous writer before-mentioned, considered as exhibiting a spectacle as deeply affecting as any which the whole range of Tragedy can offer,—presenting to us a mind, in the first spring and vigour of youth, reduced by untoward events to a state of utter desolation,—a state in which the strongest and the sweetest of human feelings can afford no delight and no consolation. The levity of his words affords the most afflicting contrast to the darkness of his feelings. It is the levity of despair,—the writhings of a heart that is all but broken.

We have observed, that the death of the uncle king appears at last to be the result of accident; but the circumstances are chosen with admirable art, in order to produce the catastrophe by the hand of Hamlet; and as his character is drawn, we could hardly conceive it to have taken place otherwise. We have seen that on other occasions he constantly contrives some excuse or pretext *for delay*,—something which affords him the means of postponing the deed to a more favourable opportunity; but he is at last so hemmed in and pressed by motives on all sides,—so completely driven into a corner, that no farther outlet or escape is possible. When wounded by Laertes, he is informed that the weapon is poisoned,—that he has not half an hour to live,—that “the treacherous instrument is in his hand unbated and “envenomed,”—that for all the wide wasting mischief that has occurred; the deaths of his mother and Laertes, and his own approaching and inevitable end—“the king is to “blame,”—the motives to the act become irresistible. His father must be revenged now—or never. He rouses himself to a last effort. There is only one thing which he can possibly do. There is but a moment to do it in, and he does it. So effectually indeed is he now excited to the deed, and so determined to leave no flaws nor botches in the work,—that, not contented with stabbing Claudius, he forces him, dying, to drink the remainder of the poisoned cup:—

"Here, thou incestuous, murderous, damned Dane,
 "Drink off this poison. Is the union here?"
 "Follow my mother."

All this may appear to us to be horrible and grim, and, missing the stage in the last act of this *Tragedy stamped with dead bodies*, may to some appear to justify the course of Voltaire against the savage and bloody spectacles of the English drama; but Shakespeare understood human nature, and, on reflection, a reason will appear for every part of the lamentable catastrophe. No one will deny the justice of the fate which overtakes the king; and although the queen is not supposed privy to all his wicked acts, yet her haste, unhallowed, and incestuous marriage seems crime sufficient to satisfy us with the justice of her death,—happening not by design, but indirectly, in consequence of the confidence of her atrocious paramour. Laertes confesses that he suffers justly, "like the fowler caught in his own springs," seen his conspiring at the king's contrivance of the poisoned weapon. That Hamlet should die almost in the act of completing his revenge is not contrary to natural feeling; for although we acknowledge that he considered revenge a duty, yet we do not pretend to justify, far less to praise it. It is expressly condemned by the precepts of Christianity, and is contrary to the best and worthiest sentiments of our nature. With this view of an act, which at best is of a questionable kind, we regard Hamlet, like the *Oedipus of Sophocles*, as the unfortunate victim of fate; as acting by a kind of moral necessity, and compelled, by circumstances and motives irresistible, to an act of violence to which no circumstances can entirely reconcile us. For these reasons, though we regret the untimely fate of a high-spirited and accomplished prince, the very circumstance of his being high-spirited, and of his possessing a moral, a feeling, and sensitive mind, tends to reconcile us in some degree to his fate; for we are satisfied that life had for him no happiness in store, and that prolonged life would only have been a prolong-

ed misery. The only other victim, Ophelia, to whom not a shadow of blame or worthiness is imputed, seems to be removed in mercy from a world which was not worthy of her, and to be taken away "from the evil to come." What should she do with life,—after the madness and desertion of her lover, —the death of her father by his hand,—and of her brother and her lover by the hands of each other? One half of this accumulation of calamities is too much for her pure and gentle spirit; and she is kindly deprived of reason, and then of life, before the sad catalogue of evils is completed in all its horror.

Upon the whole, though it may be too much to pronounce of any human work that it is absolutely faultless, we may safely say, that the more thoroughly it is examined, the more admirable the construction of this Tragedy will appear, and the more nearly it will be seen to have attained to the true end of Tragedy, the impressing, by vivid and affecting pictures, the grand and sublime moral lesson, that the evil of crime is so inconceivable and incalculable, that no one can tell beforehand what disastrous and deplorable consequences may follow from a single act,—and that it ought only to increase our horror for it, that its consequences do not alone attach to the guilty, but frequently involve the fate of others who are comparatively and even entirely innocent.

ARTICLE III.

PROCEEDINGS OF THE "HULL SOCIETY FOR PHRASEO-LOGICAL INQUIRY."

THE twelfth meeting was held at Mr Young's, surgeon, Sept. 6, 1827. After the usual business, a conversation

took place, "on the causes of precocity of talent, and many instances of self-educated individuals, who had large cerebral organizations," &c. &c.

The thirteenth meeting of the Society was held at Dr Alderson's, Sept. 20, when a conversation took place "on excitement of the brain producing general sensations of heat of the scalp, and that single organs also indicated the same phenomenon when singly active."

Rev. J. Blezard proposed Mr Thomas Holmes as a member.

A case was read by Mr Levison, in which was involved an apparent anomaly, viz. "two individuals were fighting, both strong men, and capable of giving and receiving castigation, yet one (from superior science) escaped with little injury, but nearly destroyed the *Identity* (physiognomically speaking) of his antagonist, and cried most bitterly himself," which no metaphysical system besides the phrenological one could reconcile! The conqueror (who was so much affected) had Combativeness, Destructiveness, and Benevolence, all large.

The fourteenth meeting was held at Dr C. Alderson's, Oct. 3, Mr Young in the chair. Letters were read by the secretary from correspondents; and one from George Combe, Esq. with the cerebral developments of Dr Alderson, (taken from a cast sent without mentioning whose it was,) gave much satisfaction, as it accorded exactly with the character of our esteemed president. The members felt themselves honoured by the attention and urbanity of Mr Combe, &c. &c.

A committee was proposed by the Rev. J. Blezard for Dr Spurzheim's lectures, and was formed of the following gentlemen:—Rev. J. Blezard, Messrs Casson, Craven, and Levison. Mr Levison proposed Mr West, surgeon, as a member, and also Mr E. Hall, a graduate, ——— Cambridge.

Mr Levison read the first part of a paper on physiognomy

as connected with Phrenology, and the evening concluded with a spirited conversation.

Fifteenth meeting of the Society was held at Mr Casson's, Oct. 17, Dr Alderson in the chair. Mr Levison presented to the Society "The Essay of G. Combe, Esq. on the Natural Laws," and another on Taste from Sir George Mackenzie, Bart., sent to him by those gentlemen. Thanks were voted for this mark of respect from these eminent Phrenologists.

Dr Alderson related a case of excited Acquisitiveness, which produced pain at the seat of this organ, and was relieved by local bleeding, &c. The doctor gave another case of excited Marvellousness, Veneration, &c. in a lady; who complained of pain at these parts. Soothing means and topical applications restored her.

Mr Casson gave a case of paralysis on the right side, attended with a particular loss of Language, (or memory of proper names); the pain was very acute over the left eye, recovered by bleeding, &c.

Mr Craven proposed Sir G. S. Mackenzie, Bart., as a member. Admitted unanimously.

The sixteenth meeting was held at Mr R. Craven's, surgeon, Mr Young in the chair. The secretary read the answer he had received from the council of the Literary and Philosophical Society, that they would patronize Dr Spurzheim's lectures, and give their room for the purpose, with every other facility, on that occasion, &c.

Mr Casson gave a case of a person who had received a blow on the part of the head over the organ of Self-esteem, that she had violent pain occasionally at the place, attended with a "sense of dignity," &c.

Mr Craven gave a case of a lady who had also been struck on the head; but there was *general excitement*, and a want of Consciousness.

Mr Levison read a paper "on the deficiency of the organ of Colour in a gentleman, who could not distinguish between shades, and frequently confounded primitive colours;" he was unconscious of such defect for some time; his other perceptive faculties were good; and he had excellent sight, for he could distinguish the size and form of objects, however minute or varied. He was conscious it was a *mental* defect. The eyebrow, at the part indicating Colour, is quite depressed.

Mr Young also noticed the case of a Mr Dunn, who had received a blow on the head from a fall, which has caused general derangement.

The seventeenth meeting was held at Mr Sleight's, Nov. 16, Rev. J. Blezard in the chair. The secretary read a letter from Sir G. S. Mackenzie, Bart., highly flattering to the Society.

Mr Sandwith of Beverley delivered a very interesting paper on Music and Poetry, which he analyzed in an able manner with the aid of Phrenology. He noticed the different kinds of musical composition, &c. and the cerebral organs on which they depended.

The eighteenth meeting was held at Mr Munton's, Nov. 20, Mr Young in the chair; when a conversation took place on the valuable discovery of Mr Charles Bell.

The nineteenth meeting was held at Mr Hardey's, surgeon, Dec. 13, 1827, Mr Young in the chair. Mr Levison read a paper on the functions of *Order* and *Number*. He was struck with the peculiar cleanliness of the individual (whose mask he then exhibited) in which these organs were large; and also Self-esteem and Love of Approbation. There was a uniform neatness in his dress, &c. and a rigid observance of order in his house, &c. &c.

The meeting was one of peculiar interest, as the Society

were honoured by a visit of Dr Spurzheim, whose philosophic spirit and urbanity excited the warmest esteem from every one of the members.

A meeting (special) held at Mr Young's, surgeon, Dec. 18, Dr Alderson in the chair, to make arrangements for a dinner to be given to their illustrious visitor, Dr Spurzheim.

The twentieth meeting was held at Mr Young's, on Wednesday, Dec. 26, (in consequence of Dr Spurzheim's lecture being on the Thursday.) Dr Alderson read two cases of defective organization, highly illustrative of the "Organic Laws;" and regretted that a slight indisposition had prevented Dr S. being present.

Some observations were made on the case of a member, "*whose perceptive faculties had increased since it was taken.*"

On January 2, 1838, the Society dined at the Kingston Hotel, Dr Alderson in the chair, who was supported by Dr Spurzheim on the right, and John Young, Esq. surgeon, on the left. Many individuals addressed the meeting; and at a late hour the party separated, warmed by the kindest feelings of esteem for their illustrious visitor, Dr Spurzheim.

The twenty-first meeting was held at Mr J. Robinson's, Jan. 10, 1838, who took the chair in the absence of the president.

Mr Levison gave some cases of opulent delinquents, and referred these acts to aberration of mind, occasioned by excited Acquisitiveness.

Mr Robinson also gave a similar instance of diseased Acquisitiveness of a Mr Brown, a surgeon.

Twenty-second meeting was held at the Rev. J. Blesard's, Jan. , 1838, Mr Young in the chair. A conversation took place on various subjects of Phrenology.

Twenty-third meeting at Mr Levison's, Feb. 7, 1838, Dr

Alderson in the chair. A conversation took place on the habits of birds, animals, &c. showing the agreement with their natural history and economy.

Mr. Craven related a case of *spina bifida* of the brain of a child, which, on being pressed, the arm and hand on the opposite side were sensibly affected,—the nails turning quite blue, &c.

Twenty-fourth meeting was held at Mr C. T. West's, Feb. 21, for some private business of the Society.

Twenty-fifth meeting was held at Dr Alderson's. After the minutes had been read, Dr A. proposed Mr Sawyer, surgeon, of Helton, a member.

Mr Casson dissected a brain. The subject had died insane at a very advanced age,—the fibrous structure of the anterior lobes appeared coarser than usual,—the middle lobes were large,—the organs in sincipital region very large, particularly *Veneration*,—and he invariably attributed all things to God! He was a great feeder; and the convolutions anterior to the organs of Destructiveness were extremely large.

Twenty-sixth meeting was held at Dr C. Alderson's, March 20th, Mr Young in the chair. Mr Casson made some observations on the *Adhesiveness* of the pig, and cited Dr Spurzheim on the subject.

Mr Levison read a short account of two bulfinches under cerebral excitement, arising from their efforts to learn a new waltz, (by the bird-organ;) they appeared intoxicated, throwing their heads in a lateral direction for some minutes each time, after which they warbled or whistled the air. One of them died from over-excitement, and his skull was usually warm during the progress of tuition, &c. &c.

Mr Craven gave a case of excited Cautiousness, &c. in a

captain of a trading vessel, which had brought on temporary insanity.

Mr C. gave notice of a case of somnambulism.

Mr Casson proposed Mr Elliotson, surgeon, Howden, a member; and also, that "in future the meeting be held monthly."

Twenty-seventh meeting was held at Mr Thomas Holmes's, April 3d, 1828, Mr Young in the chair. The law was carried, "That in future the meetings should be held monthly."

Mr Craven gave a case of Destructiveness and Combative-ness in a child, (which were large;) that the boy, whilst beating a bull-dog, was seized by the arm, and although he suffered pain, he continued to beat the dog with all possible rancour.

Mr Levison also gave an instance of the natural language of Destructiveness, under powerful excitement, in an individual who had *large Love of Approbation* and good intellect. His children offended him; he restrained his passion in some measure, as strangers were present, but, rising from his chair, placed his hand just on *the organ*, and exclaimed, "I feel I shall murder you!" &c.

Mr L. gave also a case of defective Combative-ness.

Mr Munton favoured the Society with an interesting case illustrative of the function of the cerebellum.

The probable developments of the *Dyon's* casts were drawn by Messrs Craven and Levison.

Twenty-eighth meeting was held at Mr Casson's, surgeon, May 1st, Mr Young in the chair. The cast of the elder Dyon, being for the murder of his brother, was examined. Mr Deville of London was present at the meeting. The Society had enrolled him amongst its honorary members, in testimony of the service he had rendered Phrenology by the number of facts he had collected. He briefly returned thanks.

Twenty-ninth meeting was held at Mr Robert Casson's, surgeon, May 26th, Dr Alderson in the chair.

The evening was principally occupied by the Rev. F. Lee, who desired the assistance of the Society to educate John Clift, a boy of excellent organisation, whom Dr Spurzheim had seen at the Sculcoates workhouse. The Society promised pecuniary aid to further this philanthropic undertaking.

The thirtieth meeting of the Society was held June 18th, at Mr Sleight's, Dr Alderson in the chair.

Mr Casson favoured the Society with some remarks on an individual who died insane. He examined the brain, and the parts disorganised were the organs along the mesial line, which accorded with the derangement of *these functions*, and all the other changes of the disease which took place prior to death.

A conversation took place on this very interesting communication, as it alone would have convinced the most sceptical that the physiology of the brain accords with the science of Phrenology, and that the pathology of the brain must be empirical without it as a guide.

Mr Levinson stated, that the Society had made a serious omission in not inscribing the name of the great and illustrious founder of the science among its members; he would therefore propose "The Father of Phrenology, Dr Gall," &c. &c.

The Secretary proposed a vote of thanks to William Casson, Esq., surgeon of Leeds, for procuring the cast of the younger Dyon.

The thirty-first meeting was held at Mr Munton's, surgeon, July 18th. A conversation on phrenological subjects took place.

The thirty-second meeting was held at Mr Hardey's,

August 16th, Mr H. in the chair. A conversation took place.

The thirty-third meeting was held at Mr John Young's, surgeon, September 18th, Dr C. Alderson in the chair.

Mr Casson made some remarks on the loss of memory of common names in cases of paralysis.

Rev. J. Blezard gave an account of the loss of memory of Professor K——, from exhaustion of the brain through over-excitement, &c.

Mr Levison gave an account of his visit to the House of Correction, (attached to the workhouse at Scarborough,) where he proved the practical utility of Phrenology. He pointed out the probable crimes of many females with as much accuracy as if he had known their history, &c. &c.

The thirty-fourth meeting was held at Mr James Robinson's, October 16th, Mr Young in the chair. Mr Levison read a case of spectral illusion.

Mr Robinson read an interesting extract from a paper in the *Edinburgh Review*, on the nervous system. He remarked, that they had given phrenological views of the brain, without using the new nomenclature; even this was a proof of the progress of the science, &c.

November 6th, a special meeting was held at Mr Levison's, for the purpose of taking into consideration the necessity of making some arrangement for the maintenance, &c. of John Cliff, as the Rev. F. Leo had been prevented (for the present) from redeeming his pledge. The following was passed (after numerous others had been proposed and rejected):—

Copy from the Minutes.

“ Mr Young proposes that this Society cannot interfere
 “ in the matter of providing for the future maintenance of
 Vol. V.—No XX.

" John Cliff, who was taken from Hull by the Rev. F. Leo;
" seconded by Mr Robinson, and carried."*

The thirty-fifth meeting of the Society was held at the Rev. J. Blezard's, November 20th, the Reverend Gentleman in the chair.

Mr Craven gave a case of morbid Cautiousness in a boy sixteen years old.

Mr West also noticed a similar case, an idiot very muscular, always walks with a huge stick, but whose timidity is so great that a child may secure him.

Mr Levison proposed John Bogg, Esq., surgeon, Louth, a member; also W. Wrangham, Esq., surgeon, do.

Thirty-sixth meeting of the Society was held at Mr West's, surgeon, December 18th, 1828, Dr Alderson in the chair.

Mr Levison read a paper on the cast of Joseph Pugh, hung at Shrewsbury for an atrocious murder at Market Drayton; and another on the cerebral developments of — Steventon, hung for a murder at Halesowen on an officer of the Court of Requests, &c.

Mr William Casson of Leeds placed a cast on the Society's table, without making any remarks. Several individuals offered an opinion on it, from its cerebral organization, which accorded with the history of the individual.

Dr Alderson wished the Society were provided with a room to deposit casts and skulls; and, from the zeal manifested, in all probability this desirable object will be accomplished. After a very interesting evening, the meeting separated.

* We understand that what the Society refused to do as an association, they are doing as individuals, — for they are maintaining the boy.

to view it with diminished aversion, and a larger portion of reason and impartiality is brought to the consideration of its evidence. After these preliminary observations, we enter on an examination of the character and development of Burk, without experiencing either difficulty or hesitation.

There are two classes of criminals,—those who are habitually violent, and those who are tolerably virtuous till excited by temptation. Bellingham was habitually fierce, passionate, and unreasonable, and in his head Destructiveness is very large, and Benevolence and Intellect small. M'Kean, who murdered the Lanark carrier, was for a long time a tolerably respectable man,—a leading member of a dissenting congregation, and much attached to his wife. His head presents great Combativeness and Destructiveness, with considerable Benevolence. Tardy, the Spanish pirate, whose murders, for number, coolness, and deliberation, approached somewhat near to Burk's, possessed a calm exterior, and had conducted himself with some degree of propriety during several years of his life; and the same combination of large Combativeness and Destructiveness, with some portion of Benevolence, occurs also in him. It is a principle of philosophy, which holds equally in mental as in physical science, that *ex nihilo nihil fit*, or that something never comes out of nothing. If, then, Burk was intensely selfish, a correct exposition of his character must exhibit the selfish principles strong in his nature; if he was atrociously murderous, the element of Destructiveness must appear; but if Burk actually manifested also some portion of attachment, of kindness, and of honesty, the elements of these better feelings must likewise have existed in his mind. To discover the real character of this extraordinary man, let us attend briefly to his history.

“William Burk,” whose crimes have condemned him to an ig-

* This account is taken from a history of Burk and his associates, published by Thomas Ireland, junior. It contains the following statement prefixed to the Life of Burk:—

Phrenology, however, like every other system of natural truth, is an unbending science. It does not accommodate its responses to the varying prejudices of men, but gives them impartially, according to what it finds in the brain. After the whole facts of any particular case have become known, and the transactions have been tried at the bar of reason, its decisions have been acquiesced in as sound by intelligent and unbiassed inquirers, who sought only after truth. In the case of Thurtell, for instance, it was first asserted that Phrenology was overturned, because he had no Destructiveness. The publication of the cast refuted this objection by showing a large organ of Destructiveness. It was next objected that Phrenology was overturned because Thurtell had a large Benevolence. To this it was replied, that Thurtell in his life had manifested great kindness and even generosity of disposition; bestowing, as one example, his last half-sovereign on an individual more wretched than himself; and that the correct statement was, that Thurtell's large Benevolence had not proved adequate to restrain his larger Destructiveness, excited as the latter was, and neutralized as the former was, by the swindling transactions at play which he conceived Weare to have practised upon him. This answer was not admitted by the public at the time as sufficient; they held that, unless Thurtell's head had been all composed of Destructiveness and of nothing else, Phrenology was refuted. But this was the mere waywardness of ignorant prejudice. At the present time, no sensible man, who peruses the unequivocal testimonies of Thurtell having manifested the kindlier feelings of our nature, as well as the fiercer traits of it, will say that Phrenology is refuted, because organs for both sets of feelings were found developed in his brain.

Time is doing its part with Phrenology as with every thing else. The public mind has now become more familiarised with it, and, from perceiving it steadily advancing and extending after countless predictions of its downfall, is disposed

to view it with diminished aversion, and a larger portion of reason and impartiality is brought to the consideration of its evidence. After these preliminary observations, we enter on an examination of the character and development of Burk, without experiencing either difficulty or hesitation.

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* This account is taken from a history of Burk and his associates, published by Thomas Ireland, junior. It contains the following statement prefixed to the Life of Burk :—

"nominious death on the scaffold, describes himself, in his judicial declaration, emitted before the Sheriff-substitute of Edinburghshire, in relation to the cause for which he was tried, as being thirty-six years of age. He was born in the parish of Orrey, near Strabane, county of Tyrone, in Ireland, about the year 1792. His parents were poor, but industrious and respectable in their station, which was that of cottiers, occupying, like the most of the peasantry of Ireland, a small piece of ground. The Irish are remarkable for the avidity with which they seek education for their children, under circumstances in which it is not easily attainable. The parents of Burk seem to have been actuated by this laudable desire, as both William and his brother Constantine must have received the elements of what, in their condition, may be called a good education, and superior to what usually falls to the lot of children in their rank in Ireland. He was educated in the Roman Catholic faith, which he has ever since nominally adhered to, though with little observance of its doctrines or ceremonies. He is by no means, however, a person of the brutal ignorance or stupid indifference that his callously continuing in a course of unparalleled wickedness, apparently without compunction, would be token. He has sinned deeply, but it has not been altogether against knowledge, as he could at times put on a semblance of devotion; and during the fits of hypocrisy, or, it may be, starts of better feeling, before he became so miserably depraved, his conversation was that of a man by no means ignorant of the truths of Christianity, and such even as to lead some to imagine him seriously concerned about his eternal salvation. During one of these temporary ebullitions about five years ago, he became an attendant on a prayer-meeting held on the Sabbath evenings in the Grassmarket. He was for some time remarked as one of its most regular and intelligent members. He never omitted one of its meetings, and expressed much regret when it was discontinued. As a Catholic, he was considered wonderfully free from prejudice, frankly entering into discussions upon the doctrines of his church, or those of other sects, with whose tenets he showed some acquaintance.

"He read the Scriptures, particularly the New Testament, and other religious books, and discussed their merits. On a Sabbath especially, though he never attended a place of worship, he was

"We can pledge ourselves that every circumstance that is here narrated has been obtained from such sources as to leave no doubt of its authenticity. It will be seen, that, while this memoir is a great deal fuller than any one that has appeared, it is also dissimilar in many particulars to the disjointed fragments that have been from time to time published. How these have been obtained we cannot say; but we can aver, that this account has been received from sources which may be relied on, and much of it from the unhappy man himself; indeed, so much as to entitle us to say that it is almost his own account."

" seldom to be seen without a Bible, or some book of devotion, in " his hands."

When at school, he was distinguished as an apt scholar, a cleanly, active, good-looking boy; and though his parents were strict Catholics, he was taken into the service of a Presbyterian clergyman, in whose house he resided for a considerable time. He was recommended by the minister to a gentleman in Strabane, in whose employment he remained for several years.

Here, then, is evidence of Burk having in his youth possessed some intellectual acuteness, and having been active, cleanly, and well-behaved for a considerable number of years; or, in other words, at this period of his life he manifested intellect and moral sentiment.

He subsequently tried the trade of a baker, at which he continued only for five months. He thereafter became a linen-weaver; but soon got disgusted with the close application that was essential to earn a livelihood at that poorly-paid, irksome employment, and he enlisted in the Donegal militia. He was selected by an officer as his servant, and we are told that he demeaned himself with fidelity and propriety. While in the army, he married a woman in Ballinba, in the county of Mayo; and, after seven years' service, the regiment was disbanded, and he went home to his wife. He shortly afterwards obtained the situation of groom and body-servant to a gentleman in that vicinity, with whom he remained three years.

" Burk was remarked to be of a very social and agreeable disposition, with a great turn for raillery and jocularity, and, what from his after-proceedings could scarcely have been supposed, " was distinguished not only as a man of peculiarly quiet and in- " offensive manners, but even as evincing a great degree of hu- " manity."

" He states, that while in Ireland, his mind was under the in- " fluence of religious impressions, and that he was accustomed to " read his catechism and his prayer-book, and to attend to his " duties."

Again the observation presents itself, that Burk, during

this period of his life, manifested dispositions decidedly superior to those which marked the close of his career with so dark a stain.

He subsequently came to work at the Union Canal in Scotland, and there formed an acquaintance with the woman M'Dougall, who became remarkably fond of him, deserted her parental roof for his society, and attached herself to him, partaking of his various fortunes during the last ten years of his life. It is mentioned that Burk treated her with kindness, and acknowledged her as his wife, and that she was passionately fond of him in return.

"During the work on the canal, he had been noted among the other labourers as of a particularly handy, active turn, and skilful in cobbling, in a rude way, his own and the shoes of his acquaintances.".....Afterwards, "He lodged in the house of an Irishman named Michael, or more commonly Mikey Culzean, in the West Port, who kept a lodging-house for beggars and vagrants, similar to the one which Hare's crime has made so familiar to the public,—in the language of the classes who frequent them,—a *beggars' hotel*.

"Many will probably recollect of a fire happening in one of these abodes of wretchedness about six years ago, when incredible numbers emerged from the miserable hovels. In this conflagration Mikey's dwelling suffered, and Burk and M'Dougall escaped from the flames nearly naked, and with the loss of all the little property they possessed. Some charitable individuals contributed to procure clothes and necessaries for the sufferers, and they received some relief by the hands of the Rev. Dr Dickson, one of the ministers of the parish. By this disaster he lost his library; and though it is somewhat surprising to hear at all of a collection of books under such circumstances, it is not the less so when the names of some of the works are mentioned. Among them were, *Ambrose's Looking unto Jesus*, *Boston's Human Nature in its Fourfold State*, the *Pilgrim's Progress*, and *Booth's Design of Grace*. His landlord afterwards took a room in Brown's Close, Grassmarket, where Burk also again went as a lodger.

"It was at this time that he attended the religious meeting we have previously mentioned, which was held in the same apartment to the one in which he lodged. During his attendance he was always perfectly decorous in his deportment, and when engaged in worship, had an air of great seriousness and devotion. The conductor and frequenters of it had formerly been subjected to much obloquy, and even violence, from the Catholics who abounded in that neighbourhood; and one evening, after Burk's attendance on it, his landlord, Mikey Culzean, attempted to

“ create derision, by breaking through some sheets of paper which
 “ were used to cover up an old window, and crying out in a voice
 “ of derision, ‘ that the performance was just going to begin.’ Burk
 “ expressed himself in indignant terms on the occasion, saying, that
 “ it was shameful and unworthy of a man to behave in such a man-
 “ ner.

“ From the general aversion to the meeting so unequivocally
 “ manifested by the Catholics, and Burk being universally known
 “ to belong to that persuasion, his frequent attendance on it, and
 “ reverential behaviour, excited the more notice. It was usual for
 “ him to remain conversing with the individual in whose house they
 “ assembled after the others had dispersed; and on these occasions
 “ the subjects that had occupied their attention during the service
 “ naturally were often talked over. His conversation was generally
 “ such as to show that he had been attentive to what was passing,
 “ and comprehended the topics brought under his notice.

“ During his residence in this neighbourhood, he gave no indica-
 “ tions of any thing that would lead people to anticipate his future
 “ enormities. He was industrious and serviceable, inoffensive and
 “ playful in his manner, and was never observed to drink to excess.
 “ He was very fond of music and singing, in which he excelled, and
 “ during his melancholy moods was most frequently found chanting
 “ some favourite plaintive air. All these qualifications, and his
 “ obliging manner, joined to a particularly jocular quizzical cha-
 “ racter, with an interminable fund of low humour and drollery,
 “ rendered him a general favourite.

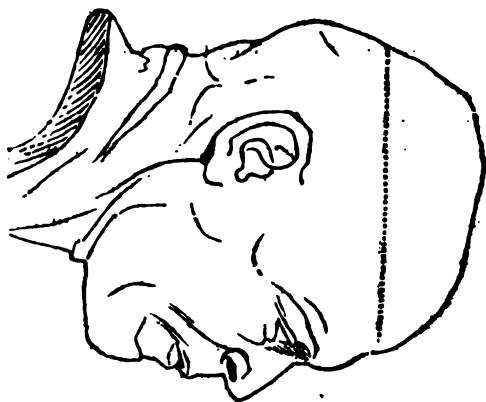
Being reduced to much wretchedness and poverty, Burk
 and M'Dougall lodged for a few nights in Hare's house, and
 during his stay, a fellow-lodger died, whose body was sold
 by Hare and Burk for dissection. At this point his career
 of atrocious villany commenced. The price of the body
 being expended, Burk decoyed a woman into Hare's den,
 murdered her, and sold her body. He and Hare repeated
 similar tragedies sixteen times during the course of a year,
 till at last they were detected.

Nothing can exceed the intense selfishness, cold-blooded
 cruelty, and calculating villany of these transactions; and if
 the organs of Selfishness and Destructiveness be not found
 in Burk, it would be as anomalous as if no organs were
 found for the better qualities which he had previously dis-
 played.

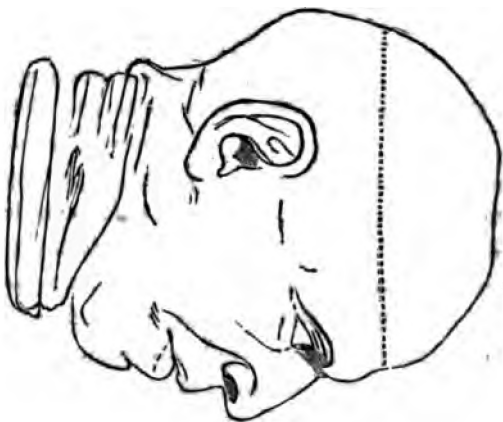
Phrenology is the only science of mind which contains
 elements and principles capable of accounting for such a

character as that before us, and it does so in a striking manner. We here present our readers with

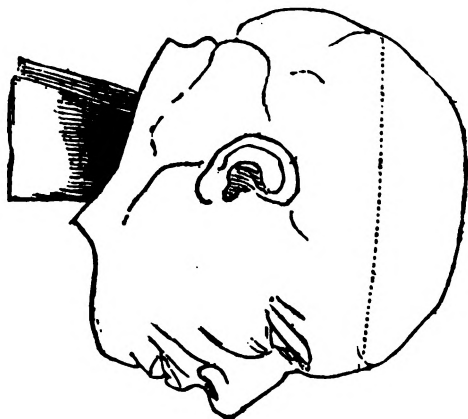
PROFILE OF BURK.



PROFILE OF REV. MR. M.

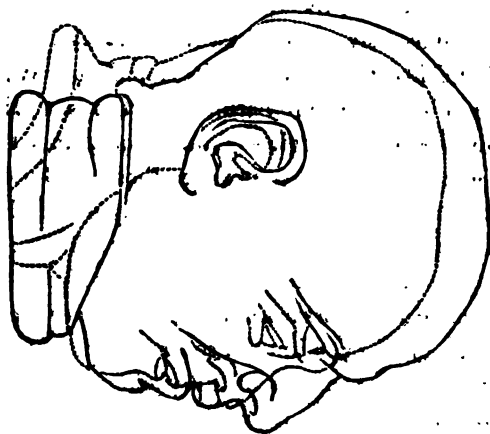


PROFILE OF HARR.

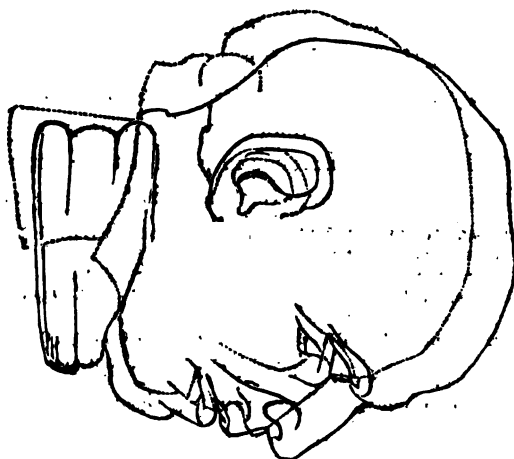


These are drawn by Mr Joseph, with the camera lucida, from accurate casts taken without the hair. The cast of the Rev. Mr M. represents the development generally found when the dispositions are naturally virtuous. His history is given in the Phrenological Transactions, p. 310; and the profile is presented as a contrast to those of Burk and Hare. The dotted lines are drawn immediately under the organs of Causality and Cautiousness, and along the upper-margin of Secretiveness; the space below the line indicates the size of the organs of the propensities, and the space above that of the organs of the sentiments, so far as this can be done by profiles. It is a principle of Phrenology, that it is the size of the organs to each other in the same head that determines the relative power of the faculties in any individual; and hence the dispositions of Burk and Hare must be judged of by comparing the relative proportions of the different organs in each by itself; and the experienced Phrenologist will find them highly instructive when so considered. But the public who are not accustomed to observation may wish to form an idea of the difference in general type between them, and a head in which the development is favourable to virtue; and it is solely to aid the uninitiated in forming a popular conception of that difference, and not either to prove Phrenology or to advocate the practice of judging of one head by another, that we have introduced the foregoing contrast. With this explanation, we add that to render the character of the heads more plain, we have, in the plate on next page, assumed the external opening of the ear as a centre-point in all the three, and traced first the head of Burk in dotted lines, and then the head of the Rev. Mr M. in black lines,—the external hole of the ear in both corresponding. The same operation has been performed with the head of Hare. The spaces between the dotted and the black lines, at the top of the heads, indicate the differences between the two in the moral and intellectual organs:—

BURK AND MR. M.



HARE AND MR. M.



The heads of Burk and Hare are inferior in the moral and intellectual organs to that of Mr M., in proportion to the space between the dotted and black lines in each profile; and they are larger than his in the animal organs beyond the ear, in so far as the dotted lines extend outward behind the black lines at the lower and back part of the head.

The following measurement and development of Burk

were taken by an experienced Phrenologist from the living head,* and compared with an accurate cast taken without the hair by Mr Joseph after the execution. We have also received a report from a medical gentleman who saw the brain dissected. The measurements and development are as follows:—

MEASUREMENTS.

	Inches.
Spine to Individuality,	8
Concentrativeness to Comparison,	7½
Ear to Occipital Spine,	4½
— to Individuality,	5½
— to Firmness,	5½
Destructiveness to Destructiveness,	6½
Secretiveness to Secretiveness,	6½
Ideality to Ideality,	4½
Constructiveness to Constructiveness,	5½
Cautiousness to Cautiousness,	5½

Note.—Burk was muscular; and in the cast with the hair shaven, taken after death, the measurement at Destructiveness, owing to the swelling of the integuments, is two-eighths of an inch larger than the measurement taken during life. The necessary abatement has been made in stating the development.

DEVELOPMENT.

- | | |
|------------------------------------|---|
| 1. Amativeness, large. | 11. Love of Approbation, full. |
| 2. Philoprogenitiveness, r. large. | 12. Cautiousness, large. |
| 3. Concentrativeness, rather full. | 13. Benevolence, full. |
| 4. Adhesiveness, full. | 14. Veneration, full. |
| 5. Combativeness, full. | 15. Hope, on one side, small; on other, full. |
| 6. Destructiveness, very large. | 16. Ideality, small. |
| 7. Constructiveness, full. | 17. Conscientiousness, full. |
| 8. Acquisitiveness, rather large. | 18. Firmness, large. |
| 9. Secretiveness, very large. | 19. Individuality, full. |
| 10. Self-esteem, very large. | |

* A measurement and development self-styled "Phrenological," differing from ours, was published in the Edinburgh newspapers, and copied into other journals. We understand that Mr Stone is the author of it; and we notice it only to remark, that it ought to have been called an *antiphrenological development*; for it was obviously published for the purpose of opposition, and it is inaccurate, like the other antiphrenological evidences of that gentleman. Its antiphrenological reports measurements are founded on as if they afforded evidence of the development of particular organs. We give them merely as indicative of the general size of the head. See Combe's *System of Phrenology*, p. 41, and *Elements*, 3d Edition, p. 151.

Eventuality, rather full.

20. Form, rather large.

21. Size, rather large.

22. Weight, ditto.

23. Colouring, moderate.

24. Locality, full.

25. Order, large.

26. Time, rather small.

27. Number, moderate.

28. Tune, full on one side ; moderate on other.

29. Language, full.

30. Comparison, rather full.

31. Causality, rather full.

32. Wit, small.

33. Imitation, full.

Wonder, small.

Burk's head is rather above the middle size. The posterior lobe of the brain is large, and the middle lobe, in which are situate the organs of Destructiveness, Secretiveness, and Acquisitiveness, is very large ; at Destructiveness in particular the skull presented a distinct swell. The anterior lobe, or that of intellect, although small in proportion to the hind and middle lobes, is still fairly developed, especially in the lower region connected with the perceptive faculties. Self-esteem is prominent, and has indented its form distinctly on the skull.

The general result of this development is, that the animal feelings are very strong ; the moral feelings are proportionately feeble, but not wanting ; while observing intellect is present in a considerable degree, but reflecting intellect much less. Let us attend, however, to the organs a little in detail.

The cerebellum, or organ of Amativeness, was large ; and Burk stated that in some respect his ruin was to be attributed to the abuses of this propensity, because it had led him into habits which terminated in his greatest crimes.

Philoprogenitiveness is considerably developed ; and it is a well-known fact, which was mentioned on his trial, that Burk was fond of children, and that they liked him in return. He stated himself that he used to carry "sweeties" in his pocket, which he gave them ; and the children who lived in the neighbourhood of his house were ready at all times to run errands for him, or serve him. He, nevertheless, confesses to having assisted Hare in murdering one child of twelve years of age ; so that he must have overcome this feeling, as he did his Benevolence in murdering adults.

His Adhesiveness is not so large as Philoprogenitiveness, but it is full. He was constant to M'Dougall, and did not betray Hare; but the greater attachment seems to have been on the part of M'Dougall towards him.

Combativeness is considerably inferior to Destructiveness in size, and Cautiousness is large. These, acting in combination with great Firmness and Secretiveness, would give him command of temper; and, accordingly, it is mentioned, that he was by no means of a quarrelsome disposition; but when once roused into a passion, he became altogether ungovernable, deaf to reason, and utterly reckless; he raged like a fury, and to tame him was no easy task; that is to say, when his large Destructiveness was excited to such a degree that it broke through the restraints of his other faculties, his passion approached to madness.

It is mentioned in the phrenological works, that Self-esteem and Acquisitiveness are the grand elements of selfishness. Both of these organs are largely developed in Burk, as are also Destructiveness, Secretiveness, and Firmness. Here, then, are organs all large, whose abuses lead to selfishness, cunning, determination, and cruelty; and nothing could more completely accord with the character of Burk.

It may naturally be asked, What became of these organs when Burk was yet a man of ordinary respectability of character? Did they all lie dormant, and show their existence for the first time only when he began to murder? No: His own statement, that, when roused to anger, he was exceedingly violent, shows that at all times Destructiveness was ready to come forth when excited, for anger is one of its manifestations. We are not acquainted with the minute particulars of his previous life; but that he would show selfishness, hardness of feeling, and also duplicity, as ingredients in his character, we cannot doubt. These qualities apparently did not break the limits of law; but the organs would not be dormant when they were possessed to such an extent.

That the feeling of Destructiveness was as powerfully pre-

sent in Bark's mind as its cerebral organ was potentest in his brain, is established not only by his murders, but by other unequivocal indications. In alluding to his deeds, he occasionally entered into the spirit in which they had been perpetrated, and then a fiendish but involuntary expression of pleasure appeared in his manner. On one occasion in particular, when asked if it were true that he had hurried the corpse of one victim to the dissecting-room with her hand still convulsively grasping some money, he laughed with a truly diabolical mixture of glee and contempt at the idea, that *they whose sole object was money* should be thought as destitute of sense as to allow any sum, however small, to escape their grasp. This, too, he it observed, occurred at a time when his habitual state was that of apparently sincere contrition, accompanied by a wish to do every thing in his power to atone for his enormities.

Constructiveness is fully developed, and the organs of Size, Weight, and Form are large. He stated that he was fond of making little mechanical articles for himself, and of seeing machinery; and, as he expressed it, "he took a sort of *ceit* in looking at threshing-mills" when in the country.

Cautiousness is large; and, when asked whether he was as heedless in getting into squabbles as many of his countrymen? he replied with a shake of the head, that he took good care of that, as he was cautious of his personal safety, and that it required a good deal to rouse him. He was asked also, how, with his general great regard to his own safety, he had acted so carelessly as to leave the body of Docherty uncovered in the room? He replied, that at first he had been exceedingly careful to prevent any thing appearing to excite suspicion; but that repeated success had made him less watchful. "Besides," he added, "I did not suspect that these people would have taken the liberty of going through the house in my absence. Was not I feeding the Grays and giving them money out of my own pocket? I did not think that they would have informed against me, even if

"they had known." He declared also, that he had great facility in keeping a secret, and that, if it had not been his sinners in that respect, Hare would have been in his place at that moment.

His great Self-esteem, Firmness, Gaitiousness, and Secretiveness, produced that self-command and unshaken composure which never forsook him during his trial and execution. Many examples of this are given :—" At seven in the morning, immediately previous to execution, Hare walked with a firm step into the keeper's room, followed by his confessor; and at this moment no appearance of agitation or dismay was discernible in his countenance or manner. The miserable wretch, who looked ghastly and more ghastly than at his trial, walked with a steady step to the apparatus of death, between his confessor, the Reverend Mr Reid, and the Reverend Mr Stewart, accompanied by the Reverend Mr Marshall; and seemed to us perfectly cool and self-possessed; so much so, that in crossing from the Lock-up-house to the postern entrance into Libberton's Wynd, where the path-way was wet from the rain and thaw of the morning, we observed him picking his steps with the greatest care."

Love of Approbation is also considerably developed, and we are informed, that " he seemed to have a great regard for his character in his native place, and where his wife resided. At one time he wished she should be sought out, and the parish priest written to; but after farther reflection, he remarked, ' It is a pity, for I always bore a good character in the place, and the knowledge of my crimes and unhappy fate would only bring disgrace on my relatives, particularly my poor father.' "

His Self-esteem and Love of Approbation would cause him to feel intensely the execrations heaped on him by the mob at his execution; and, accordingly, it is remarkable, that although he was able to conceal every other feeling that rankled in his bosom at his execution, he was not capable of suppressing the outward manifestation of the emotions which that treatment excited. " Arrived on the platform of the scaffold," it is said, " he was apparently somewhat blanched by the appalling shouts and yells of execration with which

The following extracts are taken from the Edinburgh newspapers.

"he was assailed, and cast a look of fire and even desperate defiance at the spectators, who reiterated their cries, 'intermingled with maledictions.' One of the attendants at his execution, having treated him with disrespect, roused his Self-esteem and Destructiveness, which again broke loose from restraint. It is said 'one of the persons who assisted him to ascend the platform, having rather roughly pushed him to a side in order to place him exactly on the drop, he looked round at the man with a withering scowl which defies all description.'"

Farther, looking at the coronal surface of the brain, the seat of the moral sentiments, we find it narrow in the anterior portion, but tolerably well elevated; that is to say, the organ of Benevolence, although not in a favourable proportion to the organs of the animal propensities before mentioned, is fairly developed. Veneration and Conscientiousness are full, but Hope is less in size. Love of Approbation also is full. In these faculties we find the elements of the morality which he manifested in the early part of his life, and also an explanation of the fact remarked by all who saw him, that he possessed a mildness of aspect and suavity of manner, which seemed in inexplicable contradiction with his cold-blooded ferocity. If there had been no kindness in all Burk's nature, this expression would have been an effect without a cause. The Courant of 22d January says,—"It is remarked by some of those who have access to see Burk, that his face has an agreeable and often pleasant expression, and by no means any indication corresponding to the tragic crimes of which he has been guilty." The Evening Post of 31st January observes,—"We have already stated, that the conduct of Burk since his condemnation was quite civil and mild in his demeanour to every person, inasmuch that some who have seen and had frequent intercourse with him cannot sufficiently wonder that such hardness of heart should be concealed under so plausible an exterior." What is this but saying, that human feeling actually beamed from the countenance of Burk? and I would ask, how could it appear there if it was utterly unknown to his mind?

It is by reconciling such anomalies as these that Phrenology shows its correspondence to nature. The ferocious feelings were strong in Burk, but the kindlier affections also were present, and his aspect would express the one or the other according as it was elicited by his external situation. How exactly this explanation corresponds with the fact is proved by another observation of the *Evening Post* :—

"A person who had some intercourse with Burk immediately previous to his trial, and again the day before his execution, stated, that he observed a very marked difference in his general appearance. On the first occasion, he was bold, daring, and forward * (Self-esteem, Combustiveness, and Destructiveness, predominant) ; and, on the latter, he appeared quiet, subdued, and meek : " (Benevolence, Veneration, and Hope, had attained the ascendancy).

The organ of Imitation is well developed ; and it is mentioned in the phrenological works, that Secretiveness, (which in him is likewise large,) in combination with Imitation, produces the power of *acting* or simulation. It is curious to observe, that Burk possessed this talent to a considerable extent. He stated that he was fond of the theatre, and occasionally represented again the acting which he had seen. He also, and not Hare, was the *decoyer*, who, by pretended kindness, fawning, and flattery, or by *acting* the semblance of a friend, inveigled the victims into the den. This quality enabled him also to *act a part* in his interviews with the various individuals who visited him in jail. He showed considerable tact in adapting himself to the person who addressed him ; and, from the same cause, it was difficult to discover when he was serious and when only feigning. These faculties seem also to have been the chief sources of his Humour.

One of the most striking tests of the degree in which the moral sentiments are possessed by a criminal, is the impression which his crimes make upon his own conscience after the deeds have been committed. In Bellingham, who murdered Mr Perceval, the organ of Destructiveness is very large, while that of Benevolence is exceedingly deficient ; and he could never be brought to perceive the cruelty and atrocity of the murder. Burk, in whom Benevolence

is better developed, stated, that "for a long time after he had murdered his first victim, he found it utterly impossible to banish, for a single hour, the recollection of the fatal struggle,—the screams of distress and despair,—the agonizing groans,—and all the realities of the dreadful deed. At night, the bloody tragedy, accompanied by frightful visions of supernatural beings, tormented him in his dreams. For a long time he shuddered at the thought of being alone in the dark, and during the night he kept a light constantly burning by his bedside."—Even to the last he could not entirely overcome the repugnance of his moral nature to murder, but mentioned, that he found it necessary to deaden his sensibilities with whisky, leaving only so faint a glimmering of sense as to be conscious of what he was doing. He positively asserted, that he could not have committed murder when perfectly sober.

Unequivocal testimony is borne to his repentance. "In the course of these devout and pious admonitions, Mr Reid used the words, 'You must trust in the mercy of God;' upon which the unhappy wretch heaved a long deep-drawn aspiration, or rather suppressed groan, which too plainly betrayed the anguish and despair that lurked in his heart."—"The clergyman afterwards prayed with him, and sung a portion of the 25th Psalm, in which the following lines occur:—

"Now, for thine own name's sake,
 "O Lord, I thee entreat
 "To pardon mine iniquity;
 "For it is very great."

Burk was observed, particularly, to mark with his nail the two last lines.

The smallest organs are Ideality, Wonder, and Wit, faculties which give refinement and elevation to the character,—in which qualities he was deficient.

His intellectual powers remain to be adverted to. The lower range, or perceptive organs, are well developed; and it was mentioned by himself, that he had some talent for mechanical construction, and was also orderly and cleanly when he could command the means. He read and wrote with facility. He mentioned, that at one time he used to attend church, and read books on controversial divinity, and debated over the opinions *in his own mind*. He was tolerably well conversant with Scripture. This is in perfect accordance

with his possessing felt Veneration. His conversation was pertinent and easy; and he showed readiness and shrewdness of intellect, but not much depth or extent of reflecting power.

It is worthy of observation, that Sir Walter Scott, in drawing the character of Charles II., presents a portrait, which, allowing for the difference of external situation, is amazingly applicable to Burk. Sir Walter's words are,—

“Charles, unfortunately, was very fond of pleasure, and in his zeal to pursue it he habitually neglected the interests of his kingdom. He was very selfish too, like all whose own gratification is their sole pursuit; and he seems to have cared little what became of friends or enemies, providing he could maintain himself on the throne, get money to supply the expenses of a luxurious and dissolute court, and enjoy a life of easy and dishonourable pleasure. He was good-natured in general; but any apprehension of his own safety easily induced him to be severe and even cruel; for his love of self predominated above both his sense of justice and his natural clemency of temper.”—(Tales of a Grandfather, 2d series, 2d vol. p. 170.)

It is singular, indeed, with what a trifling change of expression every word of this may be applied to Burk as well as to Charles II. We may read,—“Unfortunately Burk was very fond of pleasure, and in his zeal to pursue it he habitually neglected the interest of others. He was very selfish too, like all those whose own gratification is their sole pursuit; and he seems to have cared little what became of friends or enemies, providing he could maintain himself in idleness, get money to supply the expenses of his dissolute life, and enjoy ease and dishonourable pleasure. He was good-natured in general; but the approach of want easily induced him to be severe and even cruel; for his love of self predominated above both his sense of justice and his natural clemency of temper.”

The effect of external circumstances in exciting particular propensities is admirably elucidated by Dr Blair, in his 12th Sermon, on the Character of Hazeel; the text is,—“And Hazeel said, Why weepeth my lord? And he answered, Because I know the evil that thou wilt do unto the children of Israel: their strongholds wilt thou set on fire, and their young men wilt thou slay with the sword, and wilt dash their children, and rip up their women with child. And Hazeel said, But what! is thy servant a dog, that he should do this great thing?”

Dr Blair, in commenting on this text, observes, “We here behold a man who, in one state of life, could not look upon

"certain crimes without surprise and horror; who knew as little of himself as to believe it impossible for him ever to be concerned in committing them; that same man, by a change of condition, transformed in all his sentiments, and as he rose in greatness, rising also in guilt, till at last he completed that whole character of iniquity which he once detested."

"In such cases," continues he, "as I have described, what has become of those sentiments of abhorrence at guilt which were at once felt so strongly? Are they totally erased? or, if in any degree they remain, how do such persons contrive to satisfy themselves in acting a part which their minds condemn?" He answers this question as follows:—"Though our native sentiments of abhorrence at guilt may be so borne down, or so eluded, as to lose their influence on conduct, yet those sentiments, belonging originally to our frame, and being never totally eradicated from the soul, will still retain so much authority, as if not to reform, at least, on some occasions, to chasten the sinner." It is unnecessary to point out the application of these remarks to the case of Burk, as it is self-evident.

Dr Blair continues,—“The seeds of various qualities, good and bad, lie in all our hearts; but until proper occasions ripen and bring them forward, they lie there inactive and dead. They are covered up and concealed within the recesses of our nature; or, if they spring up at all, it is under such an appearance as is frequently mistaken, even by ourselves. Pride, for instance, in certain situations, has no opportunity of displaying itself; but as magnanimity, or sense of honour. Avarice appears as necessary and laudable economy. What in one station of life would discover itself to be cowardice and baseness of mind, passes in another for prudent circumspection. What in the fulness of power would prove to be cruelty and oppression, is reputed, in a subordinate rank, no more than the exercise of proper discipline. For a while the man is known neither by the world nor by himself to be what he truly is. But bring him into a new situation of life, which accords with his predominant dispositions, which strikes on certain latent qualities of his soul, and awakens them into action; and as the leaves of a flower gradually unfold to the sun, so shall all his true character open full to view.

“This may in one light be accounted not so much an alteration of character produced by a change of circumstances as a discovery brought forth of the *real character*, which formerly lay concealed. Yet, at the same time, it is true that the man himself undergoes a change. For the opportunity being given for certain dispositions, which had been dormant, to exert themselves without restraint, they of course gather strength. By means of the ascendancy which they gain, other parts of the temper are borne down, and thus an alteration is made in the whole structure and system of the soul.”

There is great acquiescence and truth in these remarks, especially in the latter, in which Dr Blair observes, that difference of circumstances brings forth a discovery of the *real* character, rather than operates a radical alteration of it; while, at the same time, there is a change, in so far as one set of feelings gain the ascendancy in the new situation which were subordinate in the old. In Bark, poverty, habits of vicious pleasure, intoxication, and the example of Hare, gave an ascendancy to Destructiveness which in happier circumstances it did not possess.

This case is highly instructive to the Phrenologist, and shows the effect of external circumstances in bringing into predominance different elements of the mind. We have never taught, that a man cannot commit murder who has an organ of Benevolence, for every individual has all the organs; but that a man cannot commit cool murder without possessing Destructiveness largely developed, and here Destructiveness is very large. If it had been small, this case would have afforded a strong objection against that organ, because the propensity would have been manifested strongly without a corresponding development of the organ. It is true that Phrenologists have hazarded the conjecture as probable, that if the moral organs possess a sufficient predominance in size over Destructiveness and Combativeness, the individual will not be capable of committing a deliberate murder while sane; but they have made no pretensions to tell the *exact proportion* of moral power which in given circumstances will be sufficient to restrain a given development of the animal organs from abuse. The present case is pregnant with instruction on this point. We perceive that a considerable degree of moral feeling has been as dust in the balance when weighed against the excitement of the animal powers of Bark, stimulated by the external temptations offered to them.

Having laid before our readers a phrenological sketch of the character of Bark, as compared with his cerebral development, we beg now to add a few remarks on the indications

prevented by that of his insatiable avarice and compulsion, Hare. We were allowed to examine the head, and our estimate was afterwards corrected by a comparison with a very faithful cast taken by Mr. Joseph, with the hair so closely cropped as completely to present the appearance of a cast moulded on the shaven scalp, except along a marginal line in front, where Hare would not allow the hair to be cut away; but even there it is so thin as to present no obstacle.

At a glance, the proportion of brain in the lower and back part, where the organs of the inferior propensities are situated, is perceived to be very great, compared with the top of the head, or region of the organs of the moral sentiments; which is low and flat, indicating a preponderance of the selfish and grovelling over the higher faculties of his mind. The organ of Acquisitiveness, which lies in the temple, and which gives the love of gain, is very large, and stands broadly out, much surpassing the same part even in *Burk*, in whom it was very considerable. The temporal muscle lies over it, and throws some difficulty in the way; but, making every allowance for its thickness, (which is generally moderate so high up,) the organ is unquestionably very large. The prominence which it occasions is so remarkable, that an inexperienced or superficial observer might easily confound it with the organ of Ideality, which is far from being large in *Hare*, and indeed not more than moderate. Next to Acquisitiveness, the organs of Destructiveness, Combativeness, and Self-esteem are the most remarkable, forming altogether a combination of the lowest of the propensities, which, undirected as it was in *Hare* by any considerable endowment of moral sentiment, was abundantly strong to fit him for the scenes in which he acted so brutal a part. The hope of gain would be an inducement too strong for his powers of resistance, no matter what the means were by which the end was to be obtained. The organ of Benevolence is decidedly smaller in *Hare* than in *Burk*; and it is well known that he

was the more brutal and disgusting of the two. Burk in his confessions mentions, that Hare could sleep soundly after a murder, but that he could not; which indicates less of the worst feelings in the former than in the latter. Hare's Combativeness is also larger; and his Cautionness rather smaller than Burk's;—giving greater warmth of temper, hastiness, and proneness to fightings; and in proof of this having been his character, his head, on being cropped for fasting, presented no fewer than six distinct scars, the remains of wounds sustained in his numerous squabbles and fights, chiefly in the Clowgate. The anterior lobe of the brain, containing the organs of intellect, is much shorter and smaller than that of Burk, although when viewed in front it presents a more perpendicular aspect, and may seem to be well developed. It presents no indication of the acuteness and readiness by which Burk was distinguished even to the last. In short, the development of Hare turns out to be as complete a key to his mental character as that of Burk has been shown to be to his, and harmonizes in every respect with what is known of his manifestations.

This history strongly suggests the indispensable necessity of making arrangements to withdraw the temptations which stimulated the baser principles of these men's nature to such unprecedented excesses. A Philologist would say, that there are still Burks and Hares in society,—that is, individuals who, while preserved from temptation, may pass through the world without great crimes, but in whom the capability exists of similar atrocities, if similar facilities are afforded them. In short, the case before us is instructive, in showing what a particular combination of human qualities is capable of performing in certain circumstances; and society ought to take the lesson to itself, that it is its duty, by means of education and rational institutions, to remove excitement to crime from such wretches to the greatest possible extent. The wild cry of indignation, and the amazement of horror manifested by the public, are mere ebullitions of

feeling, which lead to nothing. It is a cheap and easy way of being virtuous to express strong detestation of vice; but the true lesson to be learned from this dreadful and disgusting tragedy is to inquire into and remove the causes which gave it rise. This is active practical goodness; the other is mere indulgence of excited feelings, fleeting as the day on which they arise, and leaving no trace behind after time has caused them to subside.

ARTICLE V.

PRACTICAL PHRENOLOGY.*

To the Editor of the Phrenological Journal.

SIR,—Having observed, with much interest, the indisputable and undisguised manifestation of a number of the phrenological faculties in a child of my own, now only seventeen months old; and, farther, not having detected the manifestation in her of any faculty *not* already forming part of the phrenological analysis of the human mind;—I am not without a hope, that it may be interesting to you to hear what sort of exhibitions I did witness, that you may judge of the justice of my reference of each to the primitive impulse or impulses from which it appeared to me to spring. My attention was first led to this matter by observing the infant, whose general voice is unusually soft and gentle, begin, about ten months of age, to growl like an offended dog, if her little sisters interfered with any thing she held in her hand, or in any way thwarted or annoyed her. In a few days more she grasped her property firmly, and growled; and not long after I saw her attempt to bite one of her sisters. These

* We insert with great pleasure the following communication from a married lady of much intelligence and talent, who has studied Phrenology for several years, and who, we know, applies it with great success in the education of her family, from 14 years of age downwards to 17 months.

were clearly the manifestations of *Destructiveness* and *Acquisitiveness*. I took an interest in farther observations, something new was always coming forth, and each faculty was very palpably attended by its appropriate natural language. *Gaston* had before appeared (and, for wise reasons, it is among the first faculties manifested,) in the dread of strangers, and tendency to take alarm and evince fear. *Combativeness* appeared in thumping her toys upon the tables, chairs, or her sisters' heads, if they came in the way. *Affectionness* was visible in her attachment to her nurse and her father, and in her practice of caressing and even kissing of her own accord. These, with the earliest of all, the *Instinct for food*, were six innate primitive faculties, so free of combination, that they were easily distinguished; and I was encouraged to watch for the others with yet greater attention. *Acquisitiveness*, which formerly preserved property, now desired to acquire it: the little hands were held out, palms uppermost, with the fingers working, manifesting impatience to grasp and obtain the thing in sight,—the very pathognomy laid down in the phrenological books. At 16 months she would not allow her sisters to touch her bonnet, her shoes, &c. though she did not object to other persons touching her property. *Imitation* occurred early, and gave rise to the imitation of actions, sounds, and cries of animals. *Mirthfulness*, or Love of the Ludicrous, was manifested in hearty laughter at the antics of her sisters, and little absurdities which they performed for the purpose; and *Firmness*, in persevering in her object, by holding and hawling; and also, in proportion as memory increased, by the mind being with more difficulty diverted from its first object. *Individuality* was obvious in her recognition of objects, and in the serious intense gaze of inquiry when any thing new was presented to her. *Form* also acted in combination with *Individuality*. She took up a piece of new narrow tape, which, being tight folded, she mistook for a paper to light a taper with, (an operation she had witnessed,) and insisted upon having it lighted, till a folded paper was put

into her other hand. She looked surprised, touched, burst, and threw away the tape. She likes pictures in a book, but does not seem to discern a bird from a beast very accurately, though she knows cats, dogs, men, and horses, in life. *Locality* appeared in distinguishing the different rooms and places where persons and things are to be found; and *Eventually* in remembering certain combinations of circumstances as leading to known events; for example, she one day had her bonnet put on to be taken out, and it came on to rain; the screaming resistance she made to taking off the bonnet without walking was such, that the nurse absolutely was obliged to take her out for a minute or two under an umbrella, to appease her.

Colours soon attracted her. She was distinguished; for she puts aside every piece of bread or cake for the largest.

Weight, or resistance, or an instinctive adaptation of muscular effort to the mechanical laws and perception of gravitation, was obviously manifested in her efforts to preserve her balance, and her mode of using and handling objects. One day, having let a piece of card spring from her hand, as she sat upon my knee, she instantly raised both feet to prevent its falling to the ground, and succeeded. I have also seen her support a lapful of shells by the same means. She claps her hands in *Time* to music, and moves her feet or her head. She has often tried the whole three movements at once; but being unable to do this, and also to keep time, the combined effort seemed not to be satisfactory, and she returned to each separately. *Number* has appeared in complaints until the known complement of a set of toys is set before her.

Time has showed itself by her distinctly humming a bar or two of several airs played by her sisters on the piano-forte. I lately heard her correctly accompany the notes of an air while her sister played it; not more, however, than two bars are yet attempted by her. She has the fixed stare of *Wonder* when any thing very novel is presented to her. A flute was played to her, and for a few seconds Fear was the pre-

dominant expression, which gradually subsided into the gaze of Wonder, and lasted many minutes. (This feeling, as she called her, that she seemed unconscious and inaccessible to Tona. Language, although she can only distinctly articulate "papa," may be said to be acting, as she has the sound of several words, and imitates a variety of cries; it is quite easy to distinguish her meaning by her sounds, although no word be attempted, and she has an action to accompany the sound. If she desires to go up stairs, the head and arms are thrown upwards; if down stairs, the whole body is bent downwards: if these actions are resisted, her screams are not gentle ones. The cries of a demand, of disapprobation, of approbation, of joy, of grief, or for assistance, are all the distinct intonations which compel attention. But her manifestation of Language is appearing most unequivocally in her correct understanding of words spoken to her.

There is *Benevolence* in her kindness of manner. If a sister falls and cries, she is desirous to kiss and pat her, using soft tones which express her desire to soothe. Her *Philoprogenitiveness* delights in a doll, which she hushes to sleep; and to other infants she shows patronising care in feeding and kissing them. *Love of Approbation* was thus shown; she was busy playing with a couple of red japanned rings, and slipped one over each arm, which gave her great delight. Her sisters joined in applauding the manoeuvre, but her father not observing, she threw her head to one side upon the shoulder, in the well-known pathognomy of the faculty, and cried "papa, papa!" in a most solicitous, insinuating, soft tone of voice, holding up her arms to him. Since this feat she attempts to put every gay thing upon her own person. A corallian necklace greatly delights her, and she calls attention to it. Is there not some *Ideality* in thus bedecking herself?

Self Esteem, I should suppose, is in combination with almost the whole faculties, in the decided consideration of herself and of nobody else. An infant is the most inexorable of tyrants; we are compelled to obey its desires.

I had observed what I thought a *descriptive* expression in the countenance, but no direct manifestation of it till after 34 months, when, being told not to send something, she most steadily watched my face while she quietly put her hand to the forbidden object; and, if distressed, when seated at the table, while a *disorgan* was playing, she very easily took a piece from the board, and hid it in her lap. We purposely took no notice, and in a few seconds another piece disappeared, which she kept in her hand, and put it behind her; she then laughed heartily, and was quickly easily pleased with her exploit.

She is now in her 14th month; she neither walks nor talks. I cannot distinguish any other simple manifestations. It is possible, however, that *Comprehension* may be acting, for she will refuse a wooden doll if she seems wretched; and she knew paper from tape.

The faculties yet unmanifested are those for which at present she has least need. Causality, Order, Constructiveness, Veneration, Hope, Conscientiousness, and Contentiveness. The site of the organ of Veneration is at present a fertile valley for the growth of many; the rest are, I conclude, coming forward at their appointed season; though probably they will not be so simply manifested as those already noticed; combinations of various faculties being already discernible, which will increase with every day's advance in life.

That I may not appear to be offering you a fruitless narrative, I would humbly suggest the following as the good which may be extracted from this my otherwise idle conversation:—1st, The observations made demonstrate that the faculties are innate. Most assuredly not one of the main passions in this very young lady is the result of incultivation, or acquired, as Mr Stewart says, by habits of business or study. Whether connected with regions of the *higher* or not, the faculties manifested form beyond dispute a part of the said young lady's nature. 2dly, That each faculty has its in-

variable natural language. 3dly, The same phenomena afford very gratifying proof, that Phrenology is a correct exposition of the primitive faculties of the human mind; for I cannot see how I could have been drawn by any of the old catalogues of faculties to observe my infant's manifestations at all. The impulses act in so young a subject so undisturbedly, and I think, too, so simply if at all in combination, that there is no mistaking their distinctive phases. 4thly, If I have distinctly traced the separate and well-defined action of 27 out of 35 faculties in the first seventeen months of life, it is to me a very satisfactory answer to the objection, that the phrenological primitive powers are too numerous to be true. And, lastly, The observation of so early a manifestation of faculties would tend to improve the educative powers of the sex who are the earliest guardians of our species, and enable them to put in practice the most efficient and delightful infant education.

I am, &c.

A MOTHER.

ARTICLE VI.

VISIT TO DR GALL.

(From a Communication to the Birmingham Journal.)

Most of us find some amusement in tracing, on Fancy's tablet, the portrait of a person of whom we have heard much, and particularly after we have read many of the works of an author, but with whom we have had no personal acquaintance. It generally happens, however, that our portrait is not correct, when we compare it with the original. Thus it was with myself. I found Dr Gall (in 1826) to be a man of middle stature, of an outline well-proportioned,—he was thin and rather pallid, and possessed a capacious head and chest.

The peculiar brilliancy of his penetrating eye left an indelible impression. His countenance was remarkable,—his features strongly marked and rather large, yet devoid of coarseness. The general impression that a first glance was calculated to convey would be, that Dr Gall was a man of originality and depth of mind, possessing much urbanity, with some self-esteem and inflexibility of design.

I After presenting my letters of introduction to him at seven o'clock in the morning, he showed me into a room, the walls of which were covered with bird-cages, and the floor with dogs, cats, &c. Observing that I was surprised at the number of his companions, he observed, "All you Englishmen take me for a birdcatcher; I am sure you feel surprised that I am not somewhat differently made to any of you, and that I should employ my time talking to birds. Birds, Sir, differ in their dispositions like men; and, if they were but of more consequence, the peculiarity of their characters would have been as well delineated. Do you think," said he, turning his eyes to two beautiful dogs at his feet, which were endeavouring to gain his attention, "do you think that these little pets possess pride and vanity like men?" "Yes," I said, "I have remarked their vanity frequently." "We will call both feelings into action," said he; he then caressed the whelp, and took it into his arms;—"mark his mother's offended pride," said he, as she was walking quietly across the chamber to her mat; "do you think she will come if I call her?" "Oh, yes," I answered. "No, not at all." He made the attempt but she heeded not the hand she had so earnestly endeavoured to lick but an instant before. "She will not speak to me to-day," said the doctor.

He then described to me the peculiarity of many of his birds, and I was astonished to find that he seemed familiar also with their dispositions (if I may be allowed the word.) "Do you think a man's time would be wasted thus in England? You are a wealthy and a powerful nation, and as long as the equilibrium exists between the two, so shall you

remain; but this never has, nor cannot, exist beyond a certain period. Such is your industry, stimulated by the love of gain, that your whole life is spun out before you are aware the wheel is turning, and so highly do you value commerce, that it stands in the place of self-knowledge, and an acquaintance with Nature and her immense laboratory."

I was delighted with this conversation; he seemed to me to take a wider view in the contemplation of man than any other person with whom I had ever conversed. During breakfast he frequently fed the little suitors, who approached as near as their iron bars would admit: "You see they all know me," said he, "and will feed from my hand, except this black-bird, who must gain his morsel by stealth before he eats it; we will retire an instant, and in our absence he will take the bread." On our return we found he had secreted it in a corner of his cage. I mention these, otherwise uninteresting, anecdotes to show how much Dr Gall had studied the peculiarity of the smaller animals.

After our breakfast he showed me his extensive collection, which I find is purchased by an Englishman;* and thus ended my first visit to the greatest moral philosopher that Europe has produced; to a man, than whom few were ever more ridiculed, and few ever pursued their bent more determinately despite its effects; to a man, who alone effected more change in mental philosophy than perhaps any predecessor; to a man, who suffered more persecution, and yet possessed more philanthropy, than most philosophers.

In comparing the characters of two men who, from their associated labours, are generally spoken of at the same time, we might say of Dr Gall that he possessed the greater genius, while Dr Spürzheim is the most acute reasoner. To the former we are indebted for the discovery of a new doctrine;

* This statement is incorrect. Dr Gall's collection, we understand, is not yet disposed of.—EDITOR.

to the latter for its adaptation to useful purposes. Gall astonished us by the vastness of his scheme of mental philosophy, Spurzheim by the attractions with which he adorned it. Gall possessed all the genius that commands respect, and Spurzheim the amiability of disposition that ever charms it.

Birmingham, Sept. 19.

ARTICLE VII.

DISCOURSE PRONOUNCED OVER THE TOMB OF DR GALL,
27TH AUGUST, 1828, BY DR FOSSATI.

GENTLEMEN,—If, on the present occasion, you remark any disorder in my ideas, it is because I am too strongly agitated by the emotions of my heart. The vivacity of the sentiments which I entertained towards the great man whom we have just lost, is such as to deprive me of the power to render him a homage worthy of his memory. What an irreplaceable blank do I perceive in the scientific world by the death of one man! —a blank which will long be felt by all the friends of science and of sound philosophy. But what a man have we lost! what a genius was his! what a happy organization Nature had given him! Yes! Dr Gall was one of those privileged individuals whom the Creator sends upon the earth at the interval of ages; to teach us how far human intelligence can reach!

Born in a small village of the Grand Duchy of Baden, (his father a respectable merchant,) our friend did not receive in the first years of his life any careful education, or any particular direction to the study of science. But his natural genius carried him into the country, and into the forests, to make observations on butterflies, insects, birds, and the other tribes of the animal kingdom. These were

the amusements of his infancy. In this manner, without knowing that such a science as natural history existed, he had gained an amount of positive knowledge which other children of his own age in large towns acquire only after much study and by the assistance of teachers. This spirit of observation was the key which opened to him the way to his future discoveries. He was ignorant that any theory of mental philosophy then prevailed in the schools; but he had remarked among his companions the concomitance of different faculties with different forms of the head and positions of the eyes. The progress of his first observations and of his first ideas was impeded from the beginning by ideas acquired from the schools. This was to have been expected, for they were in opposition to his own experience. Regard him as placed in such a position, and think what an effort it must have required to forsake the beaten path! Memory, imagination, judgment, and attention, were announced to him as the primitive powers of the mind; but when he turned to nature, instead of these, he found distinct and determinate talents,—a talent for art, or for Music, a propensity to contend or to fight, a sentiment of pity, or a feeling of adoration. It became necessary for him to pass from abstract generality to the positive and defined, and he did so by adhering with firmness to his accumulated but as yet empirical observations. It is, gentlemen, in the establishment of these principles, in the determination of the differences between the general attributes and the fundamental faculties of the mind, that the first merit of Dr Gall's philosophical researches consists. By this, he is widely removed from all the philosophers who have preceded him, and he has created a new philosophy of the human faculties. His new ideas will be appreciated by posterity very differently from what they are by his contemporaries. Most, even of those who have studied the works of our learned philosopher, have imperfectly distinguished their essential merit and importance. Gall, after having fixed, by the most determined perseverance, and the

even kings, honoured him with their approbation, and assisted with interest at his physiological demonstrations. Medals were struck at Berlin in honour of him.

Arrived at Paris towards the end of 1807, he immediately gave public lectures at the Royal Athenæum. The French savans listened to him with the same interest as those of Germany had done, and the celebrated Corvisart was, among others, one of his most enthusiastic admirers. But, alas ! an absolute ruler governed France at that epoch, and he held philosophy in horror. Nothing more was required to induce the courtiers, and some literary men, whose minds were as pliant as their spines, to declare themselves the enemies of the doctrines broached by the German doctor. Hence the ridicule and the ignoble pleasantry which degraded the *Journal de l'Empire* and most of the secondary journals of Paris,—most unworthy means certainly of discussing a science so important as that which treats of the powers of the mind and functions of the brain,—means which never reached the elevated mind of the philosopher against whom they were employed, but which contributed greatly to prevent the study and propagation of the truths which Gall had announced. At last, however, his works appeared, and several of his eminent cotemporaries hastened to do him justice, and still follow the line of investigation so successfully marked out by him.

But, I imagine, I hear some one exclaim,—“ With such claims to our respect and admiration, what were his titles in society?—did he wear any of those distinctive marks which vanity so often erects into proofs of merit? was he a member of the Institution?” Such titles, gentlemen, are too common now-a-days, and too partially distributed, and Gall's merit was infinitely superior to them. By his discoveries he has himself given rise to academies and to learned societies, which are now spread over different regions of the earth, from Edinburgh and London, even to Washington and Philadelphia in America, and to Calcutta in Asia. Where is the man who in his lifetime could boast of a success equal to this? Have

most multiplied observations, the principles of the new philosophy, passed on to the examination of the brain. In the medical schools, he had heard discussed the functions of the liver, of the stomach, of the kidneys, and of all the other parts of the body, but never had heard those of the brain explained. It was then that his attention was specially directed to the brain, and that he carried on, simultaneously, his philosophical and anatomical researches. You know the result, or rather the world knows it. The brain, which, before Gall, was a pulp, a shapeless mass, was demonstrated to be the most important organ in existence; its true structure was discovered, and the unfolding of the cerebral convolutions was announced and demonstrated to the philosophers of astonished Europe. The brain was recognized as the sole and indispensable organ for the manifestation of the faculties of the mind. It has been proved, by the aid of physiology, of comparative anatomy, and of pathology, that the brain cannot be a single and homogeneous organ, but must be an aggregation of several organs with properties common to them all, and with specific qualities peculiar to each. After the demonstration of these truths, Dr Gall was enabled to point out the situation of these organs in the brain, and the possibility of ascertaining their respective functions by the greater or less development of certain cerebral parts. Such is an abridgment of the discoveries of the incomparable man whose loss we deplore. He professed his doctrine at Vienna, where he practised honourably the medical art, when ignorance, hypocrisy, and perfidy, which have always a ready access to power, prevailed in obtaining a prohibition against his announcing the truths which he had discovered. Upon this he quitted Vienna, and, during two years and a half, accompanied by his pupil and friend, Dr Spurzheim, he travelled over the north of Europe, Saxony, Prussia, Bavaria, Switzerland, Holland, and Sweden; ultimately he came to Paris, and settled there. During his travels the most distinguished philosophers of Germany, princes, and

even kings, honoured him with their approbation, and assisted with interest at his physiological demonstrations. Medals were struck at Berlin in honour of him.

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Socrates, Aristotle, Galileo, and Bacon, when alive, witnessed any parallel to this? Shade of my departed friend, in spite of some contrarities which you met with in life, I shall always console myself in thinking that on earth you were happy.

As yet, gentlemen, I have spoken only of the man of genius, of the profound philosopher, but in our loss we have something more to regret. I have not alluded to the qualities of his heart, to the deep sentiment of justice, and the warmth and constancy of benevolence, by which he was distinguished. Time does not permit me to dwell upon all these qualities; but artists, young physicians, and many unfortunate persons of every condition, now testify by their tears the loss of a benefactor; and they do not expect soon to meet with another man who will lavish kindness with less ostentation and greater readiness, good-nature, and simplicity. These cannot sufficiently deplore his death, but they will make way for a moment to those rich patients, to princes, to the representatives of kings, whom his art restored to health, and allow them to bear witness before posterity how often Dr Gall came to implore their aid in solacing and assisting unfortunate but deserving men of talent, whom his own means were inadequate to relieve. Let these personages tell us too whether Gall ever solicited their protection for himself, or if he did not always beg it for others! And you also, relatives and friends who have lived with him in the intimacy of domestic life, add your voice to mine, and say, if ever he refused his help to a suffering being? But, alas! we must now separate for ever from all that remains of this excellent man; and, after having known him, how cruel is such a separation! Adieu! my excellent friend, incomparable genius! Thy memory will live among men so long as history shall exist; and thou wilt live in my heart so long as I shall have life. Adieu! then, for the last time.

Adieu!

mind will be as entire as ever. These observations would go to prove that mania, monomania, hypochondriasis, &c. are corporeal diseases, and that we should first endeavour to remove the physical incapacity of the injured organs, and afterwards confirm the cure by regimen and moral restraint.

But while we give our cordial assent to the outline of the system advocated by the Phrenologists, yet we are by no means certain, that the localities they have pitched on as the organs chiefly concerned in the evolution of the mind, if we may so speak, are correct; because, in the first place, it is very probable that it may require the co-operation of two or more organs to express even the most simple idea; and, secondly, I really do think it would require an immensity of observation, and comparison of heads of every size and form, besides dissections of cases such as the present, before even the function of a single portion of the brain could be permanently established, and far more before the whole of the organs composing the brain could be reduced into anything like a system.

The Phrenologists have greatly injured themselves by their pertinacity in adhering to system; for, instead of making observations, and recording facts to serve as materials for some future building of the science, they have at once assumed that their work is so perfect as to be practically useful. Now this rapidity of perfection has never obtained with any of the sciences depending on observation,—a remark of which the science of medicine affords many a melancholy example.

Cupar-Fife, 20th April, 1828.

Remarks by the Editor.

About six months ago we were favoured with an account of the preceding case by a phrenological correspondent in Cupar, who had known the deceased, and been present at the examination of the body after death. Since that time, however, the preceding more complete history of it has been pub-

of course to scout it as nonsense, and to rail at him for allowing so vague a chimera to disturb his thoughts; but still the idea gained ground, and in a few years took so firm a hold of his imagination, that what was formerly merely admitted as possible, now became matter of serious truth and causes of apprehension. He no longer attempted to conceal his belief, but avowed it openly, and even accused some of his best friends and acquaintances of being accessory to keeping him under its influence; and holding him in a continual state of alarm. His nights in consequence became greatly disturbed, and he seldom obtained any satisfactory rest. If he did sleep, he was tormented by oppressive dreams and other strange phantasms. His notion of animal magnetism was, that certain individuals, who had an antipathy to him, could wield at will an influence over him of so malignant a nature as to deprive him of every kind of enjoyment, and keep him in a continual state of discomfort and anxiety.

He invented these *invisibles*, as he called them, with vast power. No place was proof against their malignity, nor could distance restrain it. He went to Paris in the year 1822, with the view of escaping from it, but he found its influence there as great as at home. He frequently during the night could hear his enemies planning schemes for his annoyance. In his imagination they had recourse to every kind of torment which the most wicked and inquisitorial minds could invent, and were inexorable and persevering in their attacks. In the night-time, for example, they would rest on his breast with the weight of a millstone, deprive him of sleep, disturb his digestion, lock up his bowels, &c. &c.; at other times they would stimulate the bladder and rectum so powerfully and so immediately, that he had not time to undress himself; and on some occasions they would take such unwarrantable liberties with him, that he was compelled, in self-defence, to roar out loudly, by which he thought he obtained a relaxation of annoyance. Several times he made application to the local authorities to control their malignity, and even took

bond from some of his acquaintances that they should cease to disturb him. On all other subjects, saving animal magnetism, his judgment was sound, and indeed in reasoning he evinced much acuteness; a stranger, in short, when the peculiar subject was not agitated, could not detect any thing unusual about him. Latterly, however, he complained of an impairment in memory, and that of a peculiar kind. He could not recollect the words he was accustomed to express his ideas in; he would therefore stop during speech and labour for them; he seemed to perceive them as it were in his mind, but could not get his recollection to lay hold on them. He continued in this state for several years, without apparently suffering in health, or losing much flesh.

About a year before his death he had several attacks of pneumonia of the left side. On these occasions, though seriously ill, there was considerable difficulty in getting him to submit to medical treatment. Having a great aversion to medicine, he considered it in his case as useless and inert, and by no means calculated to remove the cause. At these times the only chance of success with him was, to admit his premises, but to draw very opposite conclusions. With this view we acceded to his notions about animal magnetism, and held, that, so long as its influence was applied to the body generally, its effects were innocuous; but so soon as so powerful a stimulant was for any length of time directed upon any single organ, the result could not be otherwise than hurtful, and would terminate in inflammation. In this manner, though he pertinaciously retained his opinion as to its cause, he would allow us to combat its supposed effects, and submitted to be bled, blistered, &c. &c.

For several months before he died he had a short dry cough, accompanied with a sibilous sonorous respiration; he complained also of a severe pain in the back, with an oppression and tightness across the chest, which he compared to an iron girdle. He was greatly dispirited, and confined himself very much to the house. His pulse (unless when he

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was labouring under one of his inflammatory attacks; when it was hard and quick,) felt always soft, equable, deep-seated, and feeble, but never intermittent. The sound of the heart was hardly perceptible, but its contractions appeared regular. The lower portion of the left breast and back sounded fleshy on percussion, and the respiration in these places was not perceptible by the stethoscope; but higher up, and opposite the bifurcation of the trachea, it was sibilant and sonorous. It was considered that, in addition to monomania, he laboured under chronic bronchitis, with some hepatization of the lower portion of the left lung; and from the treatment applicable to these he derived relief, though the noisy respiration never left him.

On the day of his death he had invited a few friends to dine with him. They had assembled, and all was ready, when suddenly their worthy host was seized with coughing, hawking, and spitting of blood, which increased so rapidly, and came forth in such vast quantity, that in a few minutes, being unable to expel it, he died suffocated.

Dissection.—The extreme suddenness and singularity of his death created a desire on the part of his acquaintances that the cause of it should be ascertained; I therefore examined the body in company with Drs Grace and Spens. The body was not emaciated, there being a considerable quantity of fat in the cellular membrane. In the cavity of the abdomen we could discover nothing unusual, unless that the liver was considered larger than natural, but not diseased in structure. In the chest, after the sternum and cartilages of the ribs were removed, we found about a pint of fluid blood in each of its cavities. There was interlobular adhesion of the left lung, but none between the *pleura costalis* and *pulmonalis*. Its inferior lobe felt hepatized and completely gorged with blood, the bronchi and air-cells being filled with it. After tying the blood-vessels in the neighbourhood of the heart, we endeavoured to remove the trachea, bronchi, and both lungs, from the cavity of the chest, in order

to give us more room to trace the source of blood. In doing this we discovered a large aneurism of the descending thoracic aorta. It had its seat in that vessel immediately after it gives off the left subclavian, contained about a pound of fibrinous matter in concentric layers, occupied the whole cylinder of the tube, and pressed strongly on the roots of the bronchi and on the vertebrae of the back, so that a considerable portion of the vertebrae was eroded and absorbed. On minutely examining its connexions with the surrounding parts, we found a large opening communicating with the left bronchial branch of the trachea, the rupture into which sufficiently explained the suddenness of death, and the presence of blood in that tube and other parts of the lungs. The right lung, though filled with blood, was otherwise perfectly healthy.

We opened the cavity of the cranium, and observed with some attention the condition of the brain. The veins on its surface, and particularly where they entered the longitudinal sinus, were very turgid with blood; but this we considered as accidental, and arising from the suffocating manner of death. There was an inflammatory deposit, apparently of old standing, under the arachnoid coat, with thickening of the membrane itself, and adhesion to the parts beneath for about the space of an inch and a half in length, and one in breadth, on each side of the longitudinal sinus, midway between the *crista galli* and the level of the commencement of the lateral sinuses. The cortical substance of the brain under this spot was not changed in appearance, or altered in structure. We could observe no other morbid alteration in any part of the membranes or of the brain proper, either as to softening or hardening, or other morbid change. Nor was there any watery deposit in the lateral ventricles, or any thickening of their lining membrane. The cerebellum, *tuber annulare*, *medulla oblongata*, and all the nerves issuing from the brain, appeared to be perfectly natural.

Remarks.—We have seen from the dissection that our pa-

tiest laboured under not only an illusory complaint, but also under a serious organic disease, which escaped detection during life. This is one of the misfortunes to which people in his condition are liable. They feel a variety of imaginary sensations, sufficiently intense for the time, but, from their evanescence and sudden change of character, they are little regarded either by the patient himself or his attendants. Occasionally, however, these deceptive symptoms are mixed with those arising from actual disease; and it is from a combination of this kind that arises the difficulty of separating the true from the false; but whenever they begin to assume a permanency of character and situation they ought to be considered as real, and demanding attentive consideration. For example, the fixed burning pain which my patient long complained of in his back, and a sharp lancinating pain which he referred to the left ventricle of the heart, were both evidently owing to disease; the first caused by the erosion of the vertebræ of the back from the pressure of the aneurism, and the latter to inflammation of the lower portion of the left lung. Yet it is remarkable that both these pains frequently subsided and disappeared for days and weeks, and were succeeded by others of an anomalous character. Here, therefore, the distinction between the true and false symptoms is not so easily drawn; and when the patient labours under a misapprehension of the nature of his complaint, and attributes all his feelings to some uncommon cause, as in the present instance, it is exceedingly difficult to arrive at a just diagnosis. The sibilous and sonorous respiration was evidently produced by the pressure of the aneurism on the roots of the bronchi, particularly the left, diminishing the calibre of the tube, and thereby obstructing the ingress and egress of air to and from the lungs. There was no intermission of the pulse, because the aneurism was seated beyond the giving off of the subclavian arteries, neither had he ever any unusual pulsation in the chest, or any labouring or palpitation of the heart. The latter organ was found healthy, which accounts

for its natural action ; and the only indication of the diseased aorta was an indescribable anxiety and perpetual uneasiness, which he was unable to refer to any particular place, which constantly tormented him, and which he as constantly referred to some invisible agency. I do not think, however, that the disease in the chest had anything to do with the aberration of mind, although it might contribute to exasperate it.

The hallucination in reference to animal magnetism is a subject much more difficult to unfold, as its investigation embraces the connexion subsisting between mind and matter. That this hallucination was caused by an irritation, or chronic inflammation of a fixed part of the surface of the brain, appears to me exceedingly probable ; because, in the first place, an inflammatory deposit under the covering membranes, with adhesion to the substance beneath, was found on dissection affecting a small space on the surface of the brain ; and, secondly, because the mind was unhinged only on one particular point. On all other subjects his judgment was entire, and he could discourse as rationally as any other man ; and, in like manner, on dissection we found all other parts of the brain perfectly healthy. There would appear to be something here like a chain of cause and effect. I shall not go so far as to maintain with the Phrenologists, that the mental powers of man and other animals depend upon the size and development of certain parts of the brain, or that the peculiarities of individuals are always owing to a peculiar conformation of that organ, merely because, from not having yet directed my attention to that subject, I am unable to form any precise opinion on the matter ; but from what I have heard, and the notice taken of it by some periodicals, I think it bears in the outline a great degree of plausibility.

It is exceedingly natural to think, that the organ through which alone are manifested the thinking powers or mind of an individual, must be influenced, or entirely subverted, according as the brain is either simply irritated, or altered and

destroyed in structure, because the like thing happens in other organs of the body. Farther, it is probable that all the nerves of sense have a distinct termination in the brain, or that certain portions of it are peculiarly destined for the development of these senses. Hence the sense of hearing may be affected without injuring the sense of sight. "And if this condition hold with regard to the external senses, it is extremely reasonable to think that the like circumstance obtains with the internal, and that each has a located portion of the brain through which it is peculiarly manifested; and by consequence, if any of these parts be injured or destroyed, the properties of the mind which depend on them will in like manner be injured or destroyed. The difficulty of the science would appear to consist entirely in discovering these parts, and allotting to each its proper function. To accomplish all this would require an immensity of observation continued through many years, nay ages; but notwithstanding these acknowledged difficulties, if the proposition be founded in truth, they ought to deter no one, desirous of tracing Nature to her utmost recesses, from attempting to surmount them; for, if this object could once be attained, there is no doubt that it would greatly contribute to simplify the treatment of diseases of the brain. The mind itself is totally unsusceptible of disease; for who can suppose that an incorporeal substance is liable to diseased action? It is an obstruction or obscurity in the organ alone that causes an imperfection or obscurity in the mind, in the same way that dim spectacles will always convey images to the optic nerve in a dim manner. If they happen to be stained, then all images will come to the mind with the same hue; and should they be opaque, none will be transmitted. An opacity of the lens of the eye is no proof that the optic nerves are incapacitated from receiving the impression of images. If the opacity be removed by nature, or by an operation, the individual will see as before. In like manner, if the obstruction or incapacity of the affected part of the brain be removed, the

mind will be as entire as ever. These observations would go to prove that mania, monomania, hypochondriasis, &c. are corporeal diseases, and that we should first endeavour to remove the physical incapacity of the injured organs, and afterwards confirm the cure by regimen and moral restraint.

But while we give our cordial assent to the outline of the system advocated by the Phrenologists, yet we are by no means certain, that the localities they have pitched on as the organs chiefly concerned in the evolution of the mind, if we may so speak, are correct; because, in the first place, it is very probable that it may require the co-operation of two or more organs to express even the most simple idea; and, secondly, I really do think it would require an immensity of observation, and comparison of heads of every size and form, besides dissections of cases such as the present, before even the function of a single portion of the brain could be permanently established, and far more before the whole of the organs composing the brain could be reduced into anything like a system.

The Phrenologists have greatly injured themselves by their pertinacity in adhering to system; for, instead of making observations, and recording facts to serve as materials for some future building of the science, they have at once assumed that their work is so perfect as to be practically useful. Now this rapidity of perfection has never obtained with any of the sciences depending on observation,—a remark of which the science of medicine affords many a melancholy example.

Cupar-Hisfe, 20th April, 1828.

Remarks by the Editor.

About six months ago we were favoured with an account of the preceding case by a phrenological correspondent in Cupar, who had known the deceased, and been present at the examination of the body after death. Since that time, however, the preceding more complete history of it has been pub-

lished in the Edinburgh Medical and Surgical Journal, by Dr David Scott, a very intelligent practitioner at Cupar, who, on being applied to by Dr A. Combe, not only consented to its appearance in our Journal, but kindly added such other particulars as he thought likely to be useful. We have therefore copied Dr Scott's paper from our cotemporary, and shall now subjoin a few additional remarks.

On first receiving the manuscript from our correspondent, we were very desirous to know the precise situation of the diseased appearances in the head, the length of time Dr Anderson had complained of headache, or exhibited symptoms indicative of cerebral disorder, and also his usual habits of living and of study. The following extracts from a letter to Dr Combe afford so much information on these points, that we cannot do better than lay them before the reader :—

" 1st, As to the seat of the deposit, it was precisely under the organ of Wonder; and the appearance of the brain was of a different colour, extending from that to the organ of Hope. This I pointed out to the surgeons present the moment the brain was separated from the skull. Never having seen the brain dissected before, it is possible that the organ of Ideality was also a little tinged with the inflammatory appearance; in other words, that that organ was likewise diseased.

" 2d, Dr Anderson complained of pain in the head for eight years at least previous to his death, for which he applied cold applications. His servant, whom I have just seen, says, that very frequently she had to apply cold water to it for nearly three quarters of an hour at a time; and such was the extreme heat, that she had to change the water repeatedly during that period. The pain was confined to the forehead and coronal surface, but principally to the latter region. It was his invariable practice to wet these portions of the brain every night at bedtime, and to leave the window nearly half-open during the night.

" 3d, He slept very ill after his belief in magnetism, especially during the first part of the night. The servant says that it was frequently four o'clock in the morning before he slept. When awake, he sometimes sung and whistled; at other times he complained of 'the Invisibles' annoying him. For some months, during the winter of 1826, he took breakfast at four in the morning; after which he generally fell asleep, and rose about mid-day.

" 4th, After being seriously affected, his habits of living and study changed. In particular, he lived quite retired, and never came into town, unless to complain of 'the Invisibles'; and, in short, he refused to accept of all invitations to dinner, excepting those

"of his very oldest and most intimate acquaintances; whereas, when he returned from the navy, he associated with every respectable inhabitant of the town, and was almost engaged out every day. As to his habits of study, these also changed materially. On his return he devoted his leisure time to the study of his profession, and in two years afterwards took out his degree of M. D. Lastly the Doctor read a great many French authors.

"*Sth.* As I have already said, Dr Anderson was very much in company on his return from the navy, and had no settled occupation. He was naturally very lively, and rather fickle and unsteady in his motions. He was very steady in his attachments, and possessed a very high sense of honour. In the navy he was actively employed, and, after passing the first two or three years here, the change of life must have been great indeed. His company was, however, much courted, and, mixing so much as he did in society, it might be a considerable time before he felt it."

The following extracts are from Dr Scott's letter:—

"The peculiar hallucination of mind," says Dr S., "from which finally he so much suffered, came on by degrees. At first he made mention to some of his particular friends of a strange influence to which he thought himself liable; and in course of time, from reading and continued thinking on the matter, he became perfectly convinced that he was subject to the control of some diabolical influence, which he styled animal magnetism, but in common conversation simply the *Invisibles*. Of course these 'Invisibles' were generally some of his acquaintances; so much, however, was he convinced that these 'Invisibles' possessed a terrible power over him, that sometimes he would address letters of the most supplicating description, begging of them to desist; at other times he would threaten to blow their brains out or his own. Towards the latter end of his life this mental affection was evidently combined with some disease in the chest, but which certainly was not suspected to be of an aneurismal nature, till ascertained by dissection.

"In stature he was of the middle size, about 5 feet 8 inches, of ruddy complexion, sanguine temperament, and in good condition of body; light eyes and hair, somewhat bald; the forehead broad at the base, but rapidly contracting at the sides or ridges formed by the temporal muscle, so as to have a compressed appearance: he wore his hair short, and sometimes shaved it.

"In dissection we were much occupied with the appearances that presented themselves in the chest, as described in the paper. In *sawing through the skull-cap, it appeared to me to be very thick and hard, and difficult of performance*. The dura mater was cut with scissors; and, in raising up the two sides of it towards the longitudinal sinus, the inner layer or serous side was firmly adherent, so as to be with difficulty removed to the arachnoid and pia mater beneath a small space on each side of it. I am aware

"that the veins on the surface of the brain enter the longitudinal sinus pretty thickly at this place, so as occasionally to lead to decapitation; but in this instance there was no difficulty in the matter; the torus side of the dura mater was firmly bound down to the arachnoid membrane by the intervention of a foreign substance, which was considered of the nature of an inflammatory deposit of old standing, being the same kind of lymphatic exudation which is frequently observed on the surface of other serous membranes, such as the pleura or peritoneum, binding the parts together. The arachnoid itself was thickened and opaque, and also firmly attached to the pia mater beneath. The brain proper under this place was considered healthy, as well as every other part of it. It is difficult for me at this distance of time, as the dissection was not made with any view to the establishment of phrenological doctrines, to state to you as earnestly as I could wish the portions precisely occupied by the adhesion; but I think, were you to take a skull-cap, and draw a supposed perpendicular line through it, it would correspond very nearly with the vertex, or a little anterior to it. At present, however, I could not profess to be much more accurate than this, as no measurement was had recourse to, or comparison with other localities."

It has often been observed, that persons who are fond of the marvellous in every thing,—who not only listen with delight to tales of ghosts, second-sight, supernatural agency, &c., but have even a strong tendency to believe in them as realities, and who have themselves, when out of health, been haunted by the appearance of spectres and other horrid imaginations,—are remarkable for the great development of the portions of the brain lying on the outside of the organs of Imitation, and now almost ascertained to be connected with the primitive faculty of Wonder. And a few instances have occurred in maniacs of pain being complained of in the same region of the head where the mind was haunted by unearthly and supernatural appearances; but in no instance yet on record has there been found after death an equally strong corroboration of the connexion during life between the local disease and the mental aberration; that is, supposing the morbid changes to have been really seated over the organs of Wonder, as our correspondent affirms.

It has been remarked by Dr Combe, in his paper on Injuries of the Brain, that, even if the phrenological division of organs had answered no other purpose than that of affording

us landmarks for the accurate observation of the effects of injuries of the head on the state of the mind; it would still be deserving of general attention; and a better proof of the proposition than the case before us cannot be desired. We question whether from the anatomical description of the situation of the diseased parts any two readers could fix upon the identical places; and we must acknowledge, that, had not our correspondent specified the organ of Wonder as the seat, we should have been puzzled to decide. In making this reflection, we do not mean to blame Dr Scott for being vague, but merely to show that there is at present a positive want of means of accuracy which the phrenological marks are calculated to supply.

Dr Scott makes some very just and acute remarks on the dependence of mental affections on disease of the brain and its membranes, and alludes, in a spirit of candour and liberality, which we earnestly desire to see more prevalent, to the bearing of the present case on the doctrines of Phrenology. He is one of the few who consider themselves incompetent to judge of their truth without having previously examined the evidence, and he is therefore entitled to every respect. We shall only assure him, that he would himself become an excellent Phrenologist, were he ever to direct his attention to the study.

Before concluding, we cannot omit calling the notice of the reader to the simultaneous appearance of the headaches and of the *Invisibles*. For eight years previous to Dr A.'s death, he complained of pain and heat in the anterior part of the coronal surface, and used to apply cold water to it for an hour at a time, and to have it regularly wetted at bedtime. He then slept ill, and his hallucination gained daily upon him, showing the progress of excitement in the brain. The great thickness and hardness of the skull remarked by Dr Scott were also evidences of long-existing increased action, which have been observed by both Gall and Spurzheim in chronic insanity. From the description of the general as-

pect of the skull-cap and membranes, we think it highly probable that, for a considerable time at least before death, the morbid change was not limited to the anterior part, but extended over the whole, and existed in its highest intensity at the region of the organ of Wonder. It would be rash to draw any general conclusions from a single fact; we shall therefore leave it to the consideration of the reader, and only return our best thanks to Dr Scott and to our other correspondent for their kind attention in answering all inquiries.

ARTICLE IX.

PHRENOLOGY AND THE QUARTERLY REVIEW.

To the Editor of the Phrenological Journal.

SIR,—At page seven of the 77th Number of the Quarterly Review, just published, one of those numerous *antiphrenological facts* appears, which are so often referred to as disproving the new doctrines, but which are so inherently and ludicrously absurd in themselves, that, to any one in the least acquainted with the matter in dispute, they establish nothing so incontrovertibly as the ignorance or folly of those by whom they are seriously stated. To expose the groundlessness of such facts is in general needless, as they soon fall into oblivion; but as it is useful occasionally to let the public see the value of the authorities on whom they rely, it may not be presuming too much on your admitted fairness and impartiality, to request a place in your Journal for the correction of the one referred to, as a specimen of the rest.

In alluding to Dr Granville's remarks on the supposed skull of Charlemagne, at Aix-la-Chapelle, the reviewer informs readers, that Dr G. is too sensible a man to be the gross quackeries of craniology, and praises

him for leaving its fooleries to "the young gentlemen of Edinburgh," "the northern bump-hunters, and their patron, Dr Spurzheim," of whom, he says, "we will tell a little anecdote *which we know to be true.*"

"On visiting the studio (says the reviewer) of a celebrated sculptor in London, his (Dr Spurzheim's) attention was drawn to a bust with a remarkable depth of skull from the forehead to the occiput. 'Oh, what a noble head,' he exclaimed, 'is that! *full seven inches!* what superior powers of mind must he be endowed with who possesses such a head as is here represented!'—'Why, yes, (says the blunt artist,) he certainly was a very extraordinary man; that is the bust of my early friend and first patron, John Horne Tooke.' 'Ay, (answers the craniologist) you see there is something after all in our science, notwithstanding the scoffs of many of your countrymen.' 'Certainly (says the sculptor); but here is another bust with a greater depth, and a still more capacious forehead.' 'Bless me, (exclaims the craniologist, taking out his rule,) *eight inches!* who can this be? This is indeed a head,—in this there can be no mistake; what depth of intellect! what profundity of thought must reside in that skull! This, I am sure, must belong to some extraordinary and well-known character.' 'Why, yes, (says the sculptor), he is pretty well known; it is the head of Lord Pomfret.' !!!"

As Demosthenes has said of action as a quality of eloquence, so in philosophy it may be said, that the first requisite for a good fact is accuracy, the second is accuracy, and the third is accuracy. But for none of these three qualities is the reviewer's story remarkable. In the first place, it must strike every one as extremely improbable that any man of common sense or ordinary feeling in Mr Chantrey's situation would be guilty of the impertinence implied in thus showing up to any casual visitor the original, in any rank of life, of any bust which he had been employed to model, as remarkable for that degree of folly or moral debasement which the reviewer's inuendo insinuates so pointedly against Lord Pomfret. And, secondly, setting aside this ground of improbability, I will peril my own head, that neither Dr Spurzheim, nor any other Phrenologist, ever styled a seven-inch adult male head "a noble head," or expressed astonishment at its occurrence. And if the reviewer had ever used

his eyes for that purpose, he would soon have discovered that, so far from such a head being remarkable for magnitude, nine out of ten of the adult male population of Britain wear heads above that size; and he might even have rectified his mistake nearer home, and with very little trouble to himself. Nobody who reads his article, for instance, will for one moment suspect it of displaying great "*profundity*" or superior reach of mind, and yet were its author's head to be measured, and found to fall within, or even not to exceed considerably, seven inches in length, my faith in Phrenology would be more shaken by such a fact, well attested, than by any other little anecdote which he could pen. To say, then, that Dr Spurzheim, who has dedicated his life to the observation of man, ever made a speech such as that ascribed to him, so directly at variance with every thing he has either published or spoken, is, to say the least of it, a downright absurdity, which can be listened to only by those whose prejudices have obfuscated their powers of perception, or blunted the acuteness of their moral sense.

The reviewer's other fact, of Lord P.'s eight-inch head, is equally devoid of accuracy. The reviewer ascribes the blunder as having occurred to the "oracle of the northern 'bump-hunters,' Dr Spurzheim. But Dr Burrows, who, in his late work on insanity, also refers to it, (p. 68,) assigns it to Dr Gall, and moreover names Chantrey as the artist. It matters little, in one sense, to whom it happened, if it happened at all; but it matters much to know on what authority we are to believe it; and when the reviewer says he knows it to be true, and that Dr Spurzheim was the man, and Dr Burrows mentions it, and gives Gall and Chantrey as the parties, we cannot but ask,—Who is right, or is either right?—and we cannot but feel that the fact itself requires to be established, before any refutation can be asked for,—particularly as this is not the only point of discrepancy between the narrators. The reviewer says, that Dr Spurzheim measured the head, and gives the number of inches; but Dr

Burrows says nothing at all about measurement. Next, the reviewer says, that it was *a bust* which was shown by the artist; but Dr Burrows says, that "Mr Chantrey exhibited to Dr Gall *drawings of numerous heads*. The cranio-copist selected *one*, whose ample cerebral development gave a sure index of vast talent. It was a fac-simile of "the head of the Earl of Pomfret." Dr Burrows does not mention Horne Tooke at all, which the reviewer does. It may be fairly asked, whose account is the true one here? Lastly, the reviewer makes Dr Spurzheim take out his rule to measure the *eight-inch* phenomenon on the shoulders of Lord Pomfret. Now it is notorious that *Dr S. never makes and never refers to measurements at all*, and carries neither rule nor callipers; and as it is not easy to take out of a man's pocket that which it does not contain, I suspect it would have exceeded the profundity even of the reviewer to have extracted a rule from Dr Spurzheim's so very opportunely, when it contained none.

I had written thus far, on the faith of the strong internal evidence of the reviewer's total inaccuracy, when the Wakefield Journal of the 20th February was put into my hands, stating positively, on Dr Spurzheim's authority, that "*We whole story is an unfounded assertion*," and that "*no such incident either did or could occur*;" and the fact mentioned above, that *Dr S. never measures heads or skulls*, is assigned as the reason why it *could not* have happened. What, then, will the reviewer now say to "the young gentlemen of Edinburgh" for whom his compassion is so actively excited? It is easy to tell what he *ought* to say; but his "*little anecdote*" is sufficient to convince us that he does not always do what he *ought* to do:—but, having undeceived the public, I leave him to his own conscience, if he have one,—and remain, Sir, your most obedient servant,

A NORTHERN TRUTH-HUNTER.

ARTICLE X.

CASE OF IMPAIRED MEMORY.

THE following letter appeared in the Glasgow Free Press, the editor of which paper solicited our attention to it, and requested a solution. We confess ourselves unable to offer any satisfactory theory of the phenomena described, and record the facts in order to call attention to and preserve them till future investigations shall throw light upon the subject:—

To the Editor of the Glasgow Free Press.

Falkirk, Jan. 5, 1829.

SIR,—A very singular, and to me at least incomprehensible phenomenon in philosophy or metaphysics exists here, in the person of a gentleman now nearly sixty years of age, and who has been deranged in his intellects since he was ten years old. His father was a respectable merchant in London, and sent his son to a country boarding-school, in the neighbourhood of that metropolis, for his education; he had all his faculties in as much perfection as any other boy in the school, until one day one of the elder boys, in a frolic, seized him by the chin and the back of the head, and swung him round for a considerable time: when he was released from his grasp, he was found to be bereft of his reason, and has continued so ever since. His father being rich, and of Scottish origin, made an ample provision for his future subsistence, and sent him down to Scotland to be boarded with a respectable family, with whom he remains to this day, and who have resided in this town for the last ten or twelve years.

The unaccountable circumstance to which I have alluded is the strange effect this has had upon his *memory*. In none of his faculties is his imbecility of mind so conspicuous as in

the defect of that organ, (faculty,)—it is completely destroyed, —and yet he has a *vivid recollection of whatever befel him previous to his derangement*. He relates with accuracy, and a considerable degree of humour, anecdotes of his childhood,—the little tricks he used to play upon his father,—the advices he received from him ;—pretty sensible observations for a child, which he had made on the behaviour of people whom he occasionally met with at his father's table ; and he still retains the manners of a person who has been bred in a superior sphere of life. He recites with great glee his school-boy pranks up to the very event which deprived him of his judgment ; but beyond that all is blank—he recollects nothing. He will ask fifty times in a day which day it is ; and if he were intrusted to walk out alone, to the distance of two hundred yards from his dwelling, he would forget the way back to it. As a proof of this, a relation of the family, with whom he resides, lives within that distance of his present domicile ; and when he goes there on a visit by himself, *although the house is within view of his own door, and that he actually resided in it himself for some years*, he is so conscious of his failing that he runs all the way, knowing that, if he tarried on the road, he could never find it out ; and yet he can repeat accurately the names of all his former schoolfellows. The master had been in the habit of calling over all their names every morning, and he frequently amuses his friends by calling over the muster-roll, as he terms it, in the manner of a sergeant on the parade. Various other instances could be given of this strange anomaly, which I think is worthy of philosophical inquiry ; and it will be obliging if any of your *phrenological friends* can give a solution of the difficulty, by demonstrating how the *bump* of Memory could be so *singularly* injured as to produce this seemingly inexplicable effect.

lished in the *Edinburgh Medical and Surgical Journal*, by Dr David Scott, a very intelligent practitioner at Cupar, who, on being applied to by Dr A. Combe, not only consented to its appearance in our *Journal*, but kindly added such other particulars as he thought likely to be useful. We have therefore copied Dr Scott's paper from our cotemporary, and shall now subjoin a few additional remarks.

On first receiving the manuscript from our correspondent, we were very desirous to know the precise situation of the diseased appearances in the head, the length of time Dr Anderson had complained of headache, or exhibited symptoms indicative of cerebral disorder, and also his usual habits of living and of study. The following extracts from a letter to Dr Combe afford so much information on these points, that we cannot do better than lay them before the reader :—

" 1st, As to the seat of the deposit, it was precisely under the organ of Wonder; and the appearance of the brain was of a different colour, extending from that to the organ of Hope. This I pointed out to the surgeons present the moment the brain was separated from the skull. Never having seen the brain dissected before, it is possible that the organ of Ideality was also a little tinged with the inflammatory appearance; in other words, that that organ was likewise diseased.

" 2d, Dr Anderson complained of pain in the head for eight years at least previous to his death, for which he applied cold applications. His servant, whom I have just seen, says, that very frequently she had to apply cold water to it for nearly three quarters of an hour at a time; and such was the extreme heat, that she had to change the water repeatedly during that period. The pain was confined to the forehead and coronal surface, but principally to the latter region. It was his invariable practice to wet these portions of the brain every night at bedtime, and to leave the window nearly half-open during the night.

" 3d, He slept very ill after his belief in magnetism, especially during the first part of the night. The servant says that it was frequently four o'clock in the morning before he slept. When awake, he sometimes sung and whistled; at other times he complained of 'the Invisibles' annoying him. For some months, during the winter of 1826, he took breakfast at four in the morning; after which he generally fell asleep, and rose about mid-day.

" 4th, After being seriously affected, his habits of living and study changed. In particular, he lived quite retired, and never came into town, unless to complain of 'the Invisibles;' and, in short, he refused to accept of all invitations to dinner, excepting those

"of his very oldest and most intimate acquaintances; whereas, when he returned from the navy, he associated with every respectable inhabitant of the town, and was almost engaged out every day. As to his habits of study, these also changed materially. On his return he devoted his leisure time to the study of his profession, and in two years afterwards took out his degree of M.D. Latterly the Doctor read a great many French authors.

"*5th.* As I have already said, Dr. Anderson was very much in company on his return from the navy, and had no settled occupation. He was naturally very lively, and rather fickle and unsteady in his motions. He was very steady in his attachments, and possessed a very high sense of honour. In the navy he was actively employed, and, after passing the first two or three years here, the change of life must have been great indeed. His company was, however, much courted, and, mixing so much as he did in society, it might be a considerable time before he felt it."

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"The peculiar hallucination of mind," says Dr S., "from which finally he so much suffered, came on by degrees. At first he made mention to some of his particular friends of a strange influence to which he thought himself liable; and in course of time, from reading and continued thinking on the matter, he became perfectly convinced that he was subject to the control of some diabolical influence, which he styled animal magnetism, but in common conversation simply the *Invisibles*. Of course these 'Invisibles' were generally some of his acquaintances; so much, however, was he convinced that these 'Invisibles' possessed a terrible power over him, that sometimes he would address letters of the most supplicating description, begging of them to desist; at other times he would threaten to blow their brains out or his own. Towards the latter end of his life this mental affection was evidently combined with some disease in the chest, but which certainly was not suspected to be of an aneurismal nature, till ascertained by dissection.

"In stature he was of the middle size, about 5 feet 8 inches, of ruddy complexion, sanguine temperament, and in good condition of body; light eyes and hair, somewhat bald; the forehead broad at the base, but rapidly contracting at the sides or ridges formed by the temporal muscle, so as to have a compressed appearance: he wore his hair short, and sometimes shaved it.

"In dissection we were much occupied with the appearances that presented themselves in the chest, as described in the paper. In sawing through the skull-cap, it appeared to me to be very thick and hard, and difficult of performance. The dura mater was cut with scissors; and, in raising up the two sides of it towards the longitudinal sinus, the inner layer or serous side was firmly adherent, so as to be with difficulty removed to the arachnoid and pia mater beneath to a small space on each side of it. I am aware

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ARTICLE XI.

EDUCATION—MR WOOD'S SCHOOL.

Account of the Edinburgh Sessional School and the other Parochial Institutions for Education, established in that City in the Year 1812, with Strictures on Education in general. By John Wood, Esq. Edinburgh; John Wardlaw, 1828.

THIS is a sensible, interesting, and instructive book. Bating some errors in principle, to be noticed in the sequel, the work is by far the best exposition of school-instruction we have read; while the system expounded is in itself the nearest to perfection, under the same qualification, which has yet been practically exhibited.

The author, with becoming candour, disclaims the character of an originator. He has taken the best of both Lancaster and Bell;—indeed he found *that* basis established when he first volunteered to superintend the Edinburgh Sessional School. But he has improved upon both systems, and produced results in the working beyond any thing which they ever arrived at. The Sessional *daily* School was an accession to the Parochial Sunday Schools, and is attended by from 500 to 600 pupils, from six to fifteen years of age. Mr Wood is a member of the Scottish bar, and sheriff of a county; and has no other connexion with this school than that produced by enthusiastic amateurship; which seems to have impelled him at first to attendance, by degrees to assistance, and, ultimately, by consent of masters and directors, to such unqualified supremacy, as to identify his name with the school, and render it one of the most noted *lions* of Edinburgh.

Reading, writing, and arithmetic, are the elementary branches of education taught in the Sessional School. Geo-

graphy is voluntary. The system is monitorial, the whole directed by one master, and superintended by Mr Wood. The arrangements are excellent; and the whole presents a model of order, punctuality, economy of time, and division of labour, which renders the management of 600 children as easy as that of a battalion of well-drilled soldiers of the same number. But the boast of this school is the perfection to which the new system is carried of rendering reading the mere vehicle of useful knowledge. This is called the EXPLANATORY method of school-instruction. Reading is gained by the bye. That operation exercises chiefly one faculty, namely, language, or verbal memory; under an overload of which we have all groaned, in our day, during the dull and tiresome hours of the *old* school. But the Phrenologist can analyze the explanatory system into its elements, and show that its attractions arise from the delighted activity, not only of the knowing, but also of the reflecting faculties and moral feelings. An able explainer conveys ideas of individual existences and events; also of form and size, weights, colours, sounds, places, arrangements, and numbers, with all the relations which subsist among these qualities. He goes farther, and points out the more extended relations of comparison, and even those of necessary consequence. The moral sentiments also of the pupils may be kept in the most beneficial exercise. Phrenology tells us, that the activity of every faculty is attended with pleasure; how great, then, may not be rendered that pleasure which is the fruit of the simultaneous activity of the whole! Any one who sees Mr Wood and his eager and delighted pupils engaged in a spirited explanatory exercise will cease to wonder at the progress made under his tuition. *Task* is unknown, except as a word in the course of explanatory definition; and we hope yet to hear it at Mr Wood's and all other schools defined as "the forced exercise of one or of a few faculties, while the rest are kept under an unnatural restraint." Difficulties disappear,—all is the zealous bustle of pleasurable exercise.

Mr Wood's own account of the explanatory system is this:—"Before entering upon the consideration of the reading department," says he, "it may be proper to premise some general observations on that method of EXPLANATION which has been so highly approved of in the Sessional School. Its object is threefold; *first*, To render more easy and pleasing the acquisition of the mechanical art of reading; *secondly*, To turn to advantage the particular instruction contained in every individual passage which is read; and, above all, *thirdly*, To give the pupil, by means of a minute analysis of each passage, a general command of his own language. It is of great importance to the proper understanding of the method, that all these objects should be kept distinctly in view. With regard to the first, no one, who has not witnessed the scheme in operation, can well imagine the animation and energy which it inspires. It is the constant remark of almost every stranger who visits the Sessional School, that its pupils have not at all the ordinary appearance of schoolboys doomed to an unwilling task, but rather the happy faces of children at their sports. *This distinction is chiefly to be attributed to that part of the system of which we are here treating; by which, in place of harassing the pupil with a mere mechanical routine of sounds and technicalities, his attention is excited, his curiosity is gratified, and his fancy is amused.*"*

Our author, although a great improver of it, does not pretend to be the first introducer of the explanatory system; and he rejoices, as we do, to see it practised, not only in such schools as the Circus Place and the Davy Street, but coming into very general adoption in private seminaries,—of course with very different degrees of success, according to the judgment, skill, and knowledge of the teachers. With great propriety he applauds the introduction of explanatory English reading into the High-School and Academy of Edinburgh as accessory (according to yet prevailing opinion) to the *more* important study of the dead languages. We hail it as the dawning of a wiser day, when that remnant of monachism, the engrossing culture of the *dead* languages, will be very secondary to a comprehensive and well-arranged system of explanatory English reading.

The author proceeds to detail the application of the ex-

* We have marked the conclusion in italics for subsequent reference.

planatory method to the various grades of pupils, beginning with the youngest. "In *explaining*," says he, "at this stage, it is a special instruction to the monitors never to exact any regular definition, but to be satisfied with any explanation given by the child himself which indicates his knowledge of the meaning, though it be conveyed in his own ordinary or homely language, or by mere signs. The great object, at this stage, is to enliven what would otherwise have been intolerably dull,—to teach the child that every word he reads has a meaning, and to form him to early habits of attention." Nothing can be better than this, so far as it goes. Useful knowledge is extended as the pupil advances, and information in nature and art, in so far as it can be comprehended, is communicated. We cannot follow Mr Wood through several chapters of these interesting details, but can safely say, that the reader (especially the phrenological reader) will be highly pleased with them. The system involves a very satisfactory exercise of all the faculties.

This system, like every thing new that tends to benefit the species, has met with the opposition and been subjected to the ridicule of uninquiring, prejudging self-complacency, or disguised self-interest. "When, therefore," says the author, "we consider the strong tendency which has existed for years past to turn our proceedings into ridicule, and to expose to the public every slip (often so called, *we* would add, from the sheer ignorance or unfairness of the exposers,) which every individual pupil has happened to make, the directors may surely, without any extravagant boast, be entitled to congratulate themselves on a result which they would certainly not have dared to anticipate."

We have already said, that the explanatory system of the Sessional School appears to us to stand a phrenological test, so far as it goes. This the reader must have interpreted into an opinion, that there is some shortcoming. There is a shortcoming, and it is very material. It is fortunately, however, of easy remedy, and one or two schools in Edinburgh, have already taken the lead of Mr Wood in applying it. His system makes no provision for supplying the most important of the observant faculties with its proper food, without which all knowledge of the material world must be shadowy and imperfect. This faculty of *Individuality*, so essential to

education, that Dr Gall named it the faculty of *Educability*, is the power whereby we cognize and remember individual material existences, and without which we could have no knowledge of the external world. Its *organ*, situated immediately over the nose, is prominent in children; and the *faculty* is manifested by them in the ceaseless avidity with which they examine every thing which comes in their way. Now every object, simple and complex, in nature, furnishes an *idea* to this faculty, and there can be no such idea without the object being presented through the senses to the organ. The faculties of Form, Size, Weight, and Colour, will do their part in affording perception of the qualities of the object; but the comprehension of them all in the *individual* object is the important function of the faculty alluded to. The author's system, unfortunately, starves this faculty; no material objects, not even their simulacra in drawings or models, are presented to Mr Wood's pupils. Material objects are only *described* and *talked about*, but are not seen, heard, weighed, touched, or smelled. This is one of the results of neglecting Phrenology; the existence of particular faculties is not dreamt of, and of course no means are used for their exercise. This defect is particularly conspicuous when the author appeals to nature as the foundation of *his* method. "The more the system has been matured, and the better it has been understood, approbation of it has been the more increased. Its boast is not that it is founded upon any newly-discovered principle, but that it arises from the first and most obvious dictates of nature. What judicious mother, in teaching her child to read, would not be at pains to show him as early as possible the benefit of reading? Would she not, in picking out for him the smallest words, when she came to the word *ox*, for example, tell him, not by any regular definition, but in the simplest language, that it meant the animal which he had so often seen grazing in the meadows? Would she not naturally do the same with regard to every tree or plant that happened to be mentioned? and as his capacities unfolded, would she not gradually proceed to communicate to him such higher information as his lessons might suggest? The mere artificial methods, which the *art* of teaching has subsequently introduced, however useful some of them undoubtedly are, have had the unhappy effect of banishing, in a great degree,

"this natural teaching, and of substituting, far too exclusively, in its room a mere attention to the sounds of language."

Now, we maintain, that when a material object, such as an ox, a plant, a metal, or a liquid, is in question, unless, as in the case of the ox in the meadows, it is already familiar to the child, explanations *about it*, be they ever so correct and clear, can have in his mind no *idea* for a basis, and must therefore be nothing better than "the sounds of language." Hence the judicious mother, really teaching according to Nature's dictates, would take care that every object about which she talks to her child shall first have been examined thoroughly by him, and fixed firmly in his Individuality. The Infant Schools have decidedly taken the lead in making judicious provision for this substantial exercise of the faculties. They have a complete museum of material objects, consisting of specimens of substances, vegetable and mineral; drawings of animals, mathematical figures, simple specimens of art and manufacture, and of every thing that can lay a solid foundation of elementary knowledge of the material world for guidance in after-life.

The Circus Place and St George's Sessional School have adopted the same method, though less completely and systematically. As the pupils advance, mechanical powers and instruments may be exhibited; also chemical combinations, anatomical drawings and preparations, and all objects calculated to increase useful knowledge, and communicate for life that invaluable accomplishment called *resource*. The rule ought to be inexorable, *never to talk of any objects that have not been previously seen and examined, either in reality, or representation, by the pupil*; the most confused and erroneous notions are sure to be the consequence of the contrary practice.

Mr Wood's method of impressing history, both sacred and profane, is unexceptionable. That species of knowledge, addressing itself to Eventuality, does not require sensible signs farther than the aid of maps; in the Infant Schools it is assisted by little historical pictures. This enlists some

additional faculties, and thereby increases the pleasure to the children.

We have not time to detail, what will well reward the perusal, the author's interesting account of his experimental and completely successful introduction of incidental grammar. We know that other teachers, particularly Hamilton, have taught the grammar of a language in the same natural and effectual method, without that penance called an abstract grammar-book; but we give the most implicit belief to Mr Wood's statement, that the thought was to himself original. There is no part of his system more creditable to his talents. The arithmetic, too, is quite unsurpassed, we may safely say, in the empire, for dexterity and despatch. In this department, Mr Wood refuses all the honours of witchcraft which have been tendered to him, and pretends only to have encouraged rapid notation, leaving each pupil to find out the easiest method of working the rule for himself. In notative arithmetic other faculties besides Number may lead to dexterity; for, with our pencil in our hand, we cannot be doing more at one moment than dealing with single figures, in adding, subtracting, multiplying, or dividing. In this there is no *Bidderism*, or mental operation. This last exercise, however, is likewise in use in Mr Wood's School,—the method also left to the mental calculators; and some of them perform very creditable feats. Here the author, phrenologically enough, observes, that there is considerable difference of endowment among the pupils. We have not made the observation ourselves, but should much like to know Mr Wood's experience, whether some of the indifferent mental calculators may not be good notators, and *vice versa*? This would aid our conjecture, that dexterous and prompt arithmetical notation is not the result of a large endowment of the faculty of Number alone, but depends on other faculties or combinations.

Our author states, that the *secret*, as it has been called, of his arithmetical and literary display, is emulation. That

the zeal and business-like promptitude, in every department; is produced by the intense desire of the pupils for the distinctions of places and prizes; and he agrees with the Edinburgh reviewer, (who advocates the old notions of human nature; which will continue to mislead mankind and vitiate human institutions till the phrenological discoveries become the standard philosophy of mind and man,) "that a cook might as well resolve to make bread without fermentation, as a pedagogue to carry on a school without emulation: it must be a sad doughy lump without this vivifying principle."

Here we part company with both Mr Wood and the Edinburgh reviewer; taking, by the light of Phrenology, the very opposite direction;—confessing, however, that but for Phrenology we should probably have travelled on with them very contentedly in the old road, and with them scouted the idea of any other. We now, however, see too clearly the specific action of well-distinguished human impulses, and the effect of these on human weal or wo, to be misled any longer.

Some teachers are beginning to doubt the benefits of badges and places and prizes at school. Some would even dispense with them, were they not controlled; but Mr Wood is a zealous advocate for what, by aid of a solecism, is called *generous* emulation, and, treating the opposite opinion with scorn, runs off, as if fresh from the Olympic games, into all the accredited declamation on that yet unexamined subject. For example,—“What might be the state of this question, if man, in his present imperfect condition, and particularly in its earlier stages, stood in need of no additional incentives to the pursuit of knowledge or the practice of virtue than the pure love of either, it is very unnecessary to inquire. Surely no one will contend that this is now his actual condition; and, in such circumstances, can it be wise in him to deny, either to himself or to those intrusted to his charge, the aid of any of those additional stimuli which Providence, in mercy, proffers to supply this natural imperfection? or which of those incentives is more noble or animating than the ardent desire implanted in our bosom of rising superior to our fellows? How many slumbering faculties has not this living principle roused into action! To how many days of toil and waking nights—to how many splendid discoveries

"and inventions—to how many deeds of virtue and exploits of heroism—to how much individual happiness and social improvement has it not given birth! In place of being a base and sordid passion, it is one which burns brightest in the noblest and most generous souls. Men may theoretically speak and write against it, but he, and he only, who is incapable of excellence will ever refuse its aid." We would just reverse Mr Wood's peroration, and aver, that he who is incapable of *true* excellence will take the aid of one of the most truly selfish and mischievous of all desires, the mere desire of "rising superior to his fellows."

This high advocacy of systematized emulation comes of the selfish morality of the dead languages, with which we get imbued at school, and of which there has hitherto been no ethics but those of practically-disregarded Christianity to disabuse us. The set phrases, as above, have become household words, and we reck not that we are calling "good evil and evil good," with all the weight of the denunciation of so doing on our heads.

We glanced at this subject incidentally before.* Mr Wood has answered some objections stated by himself, but he has not grappled with, for he is not aware of, the *principle* upon which our objections are founded. The subject is of such vital importance in moral education, that we shall a little more fully state our views. We do not expect to convert Mr W., but we shall have done an important duty if we shall show, what is little suspected, that the question has two sides.

1. We shall assume, without admitting, that the desire of mere "personal superiority over their fellows" does, in the pupils of a school, contribute to *intellectual* progress, nay, very materially increases it; and our thesis is, that this increase, being at the expense of their moral sentiments, is a loss and not a gain in their education. Among the feelings, as distinguished from the intellectual powers, Benevolence,

* Vol. III. page 163.

Conscientiousness, and Veneration, are supreme; these feelings alone go out of self, and desire higher objects,—the rights and the happiness of our fellow-men, and the love of our God; they are, in short, the feelings addressed in the Divine precepts, “to love God with our whole heart and mind, and our neighbour as ourselves;” and again, “to do justly, to love mercy, and to walk *humbly* with our God.” Creation is palpably constituted in reference to the supreme control of these feelings; and in proportion as they do or do not mingle in, and constitute the guidance of human conduct, will be the happiness or the suffering that will result from it. Dr. Spurzheim, in his profound work on education, says, that “human nature is so constituted by the Creator, that morality is as necessary to the prosperity of mankind as oxygen to combustion, or caloric to vegetation, or respiration to life.” Till we arrive at these exalted qualities, we shall find that we are still in the inferior regions of *self*. The propensities are selfish from their very nature, and not less so are the inferior sentiments of the Love of Approbation and Self-esteem, which in their abuse degenerate into vanity and pride, love of glory, insolence, and tyranny. With none of the selfish feelings in others can man, by his constitution, sympathize; and if we observe for what qualities man is respected and loved by his fellow-men, it is not for those qualities which enrich or aggrandize himself, but for those which have the rights and happiness of others for their objects; in other words, a man's moral rank in society is commensurate with the extent of his Justice, Benevolence, and Veneration; and in exact proportion as these high motives are alloyed by self-interest,—whether the desire of wealth, or power, or praise,—is the conduct debased and the character deteriorated. Again, the selfish impulses are greatly more powerful than the social, and differ from them in this particular, that the proper education of the selfish feelings is, in most individuals, a repressive regulation, while that of the social is expansive culture. Vanity and pride, for example, being abuses of Love of Approbation

and Self-esteem, need no encouragement, but much discouragement; while Benevolence and Justice require to be drawn forth into activity by practical exercise. Now, it has hitherto been the grand error of our schools, that they have made no provision for the practical training of the social and regulation or repression of the selfish impulses;—nay, they have not contented themselves with merely leaving the selfish as they have left the social, to themselves, but have actually made the positive culture of the selfish feelings an essential part of their systems. Can we wonder, then, at the unmitigated self-seeking of our social institutions and individual habits? Can we wonder that life is a scene where the selfish predominate over the social feelings to the overwhelming degree which we all so much deplore? Every youth is carefully educated for the race of self-aggrandisement, to value and cherish the “ardent desire to rise superior to his fellows” in wealth, and power, and splendour, and fame, and to consider all pursuits which cultivate the higher feelings as so much sickly sentimentalism and reprehensible loss of time, and quite unsuited to man “in his present imperfect state.” Now we hold, that man’s present imperfect condition—the low state of his *moral* is greatly aggravated by the neglect of his social and the great zeal of his selfish education. Many of the moral evils of society have their root in this grievous miscalculation; for crime itself is only intense selfishness. Every institution is therefore morally wrong which leaves unrepressed the selfish feelings, and much worse which positively encourages them. But the emulation of our schools is liable to the latter heavy charge. A petty ambition is the lesson taught at their threshold, and which continues to be their leading incentive to their close; and so aptly is the lesson learned, that the places and the medals are held out to be, and are felt to be, the ultimate advantages of proficiency, to which the proficiency itself is but as a means to an end. This is indeed inversion.

We anticipate the answer,—That we take the matter up too

seriously,—that the mere changing places at school or competing for a medal or a book are objects too insignificant to foster selfish feelings. No one who has engaged in or witnessed a competition at school will make this answer, or deny that such competitions have an importance in them to the parties not exceeded by that of any object of ambition in after-life; and that they have only the more moral power because the competitors are young, and the more liable to receive strong and permanent impressions. There is something in the never-ceasing agitation of place-taking, in particular, especially noxious. It is a perpetual restless scene of alternate glorying and repining, which has a double effect in fostering the pride of the one and the resentment of the other of the actors in it. We have watched its operation closely and with infinite disgust in a new seminary, where, authority being at first rather lax, feelings manifested themselves freely, which a better discipline has outwardly restrained, but by no means eradicated. To say nothing of that miserable perversion of the very purpose of school which fills the mind of the pupil, that his place in his class, to get up himself and get down his neighbour, is the grand object of his exertions, as we have the clearest proofs the prevalent idea, we have witnessed very passionate excitement from place-taking,—quarrels, falsehoods, frauds, and even blows; all coming from the desire of rising superior to each other.* The possibility of these at all is an immense evil,—the possibility of them in even a few cases is an evil; for, as Dr Spurzheim reasons, these are just the cases where the selfish system does most permanent evil, both to the children themselves and to society. The children of to-day are the men and women of to-morrow; and it is against all experience to expect the

* In the seminary alluded to, a stricter discipline has now banished these outbreaks; but every day furnishes too unequivocal evidence of those little spites and heartburnings which are inseparable from this ceaseless personal struggle for a paltry distinction, and which have moral consequences that render the intellectual advantages a dear purchase indeed.

selfish child to turn out, by mere lapse of years, a just, much less a generous man. Nothing can involve a greater fallacy than the author's notion, that friendships are formed at school, *because of a generous rivalry*. They are formed from other obvious causes of attraction in spite of that cause of repulsion. Generous rivalry is generosity when strong enough, which it rarely is, rising above rivalry. Rivalry itself is unmingled self-preference; and to apply the epithet "generous" to it is a solecism. The rivalry is selfish inherently and essentially, and is doing all its mischief in deteriorating the character of the parties, although enough of *adhesiveness* remains to attach them to each other. This is not the only error with regard to the effect of school on after-life,—an error which proceeds from indiscriminating views. Who has not witnessed the exultation of a teacher of Latin and Greek when his boy makes a figure in the professional, the literary, or the political world? These are specimens of pervert of Causality; they mistake one element of human nature for another; and this will continue to be done till thinking and writing are regulated by the clear views and broad distinctions of Phrenology.

Of course we object to prizes on the same general principle, as addressed to the selfish feelings, and as adding another of these to the combination which is excited by mere places and honorary badges, namely, *Acquisitiveness*; and thereby making up in evil for any shortcoming which arises from prizes being less personal and irritating than the never-ceasing alternations of place-taking.

Another demoralizing quality in the distinctions of school is their palpable injustice. There is great injustice in making the evidence of merit to consist, not exclusively in the manifestation of superior qualities, but in wearing a badge or occupying a seat which can be possessed by one alone; and which, moreover, may often indicate, not so much the intrinsic excellences of the individual, glorying in mere personal superiority, as the comparative deficiencies of his class-

follows. It is as illogical as unchristian to reward natural gifts, and degrade more slender endowments. We dislike as much as Mr Wood can do the affectations of Mr Malan, and the cant taught by him to his pupils; but he is unanswerable on the principle.

We now recall the assumption, that this morally-harmful system of emulation necessarily produces, indirectly, intellectual results which cannot be attained without it; and we call Mr Wood himself as our first witness to the contrary. We marked his evidence in italics on page 606 of this article, when we took him off his guard, and not theorising on emulation. He avows, that *excited attention, gratified curiosity, and amused fancy*, are the inspiring elements of his system. This is strictly phenomenological, and strictly true. All the phenomenological books teach that each faculty's exercise is a specific pleasure. The pleasure is a direct and independent result from the presentation of the object fitted by nature to excite it, and does not depend upon the activity of any other faculty. It were as reasonable, for example, to predicate that we cannot see without touching, or taste without hearing, as to say that we cannot enjoy the pleasures of intellect but through the channels of the Love of Approbation and Self-esteem. There is a radical defect in that intellectual education which is not made a source of intense and ever-waking pleasure. We do not require a bribe to eat wholesome food when hungry. Schools are judged of from the insufferable dullness and tedium of teaching mere words, and starving every other intellectual appetite. This is that really doughy lump to which places, prizes, and rods, are the necessary leaven. We grant this necessity just as we grant the indispensability of severe discipline in the navy, to force men to the disembodied duties of an unnatural life. But what, we would ask, makes Mr Wood's school to differ in all that constitutes juvenile happiness from those heart-withering houses of correction, the schools of the old system? They carry emulation to its utmost pitch, and yet how dif-

ferent from Mr Wood's willing and delighted labourers are these afflicted prisoners! There must be other elements in Mr Wood's system, and he himself has told what they are, to which mere desire of rising superior is a superfluity,—not a harmless, but a most noxious superfluity. Mr Wood is just the person to make the experiment of abolishing place-taking and prizes, to repose a just and well-deserved confidence in his own system, and fearlessly to let it bear its own weight. He has made as bold experiments as this, and been surprised with his own success; and when he has thrown away these miserable crutches which deform him, our word for it, he will find that he stands erect and firm without them; and while he takes nothing from the intellectual advantages, will greatly elevate the moral character of his system.

If Mr Wood should still ask, for what was the love of distinction so strongly implanted in the human breast, if it is to be “eradicated” in this manner?—we should answer, that no Phrenologist talks of eradicating any of the primitive impulses of the human mind; but useful knowledge and amiable dispositions, we remarked in a former Number, constitute real excellence; and we should teach children to appreciate the intrinsic advantage of these attainments, and practically to rely on the manifestation of them as the grand sources of happiness, honour, and prosperity, through life. To excel in these is the legitimate object of Self-esteem and Love of Approbation. But it is obvious, that every individual may abound in these gifts without limiting the quantity attainable by his fellows; and hence the most ardent desire in one child to surpass all others in virtue and wisdom, and thereby, to gratify his desires of renown and supremacy, does not necessarily imply a single pang of suffering or the slightest degradation in those who run with him in the same race. There are here not one prize, but prizes for all according to their degrees of merit. Such are the ethics of Phrenology, and such, moreover, are the ethics of Christianity. The meagre gleanings, adduced by the author, of a few incidental ex-

pressions in Scripture seeming to favour his argument, are scattered to the winds before the overwhelming force of principle and of precept wherewith the Sacred Volume teems, which stand opposed to the abuse of the faculties desiring praise and power, which condemn self-exultation, and inculcate humility. Even when the Christian's progress is figuratively called a race, its prize is essentially that very moral excellence which excludes selfishness, and, without jostling, or hindering, or pulling back, or *getting down* our fellow-competitors on the way, may be won by ALL who run for it.* In one part of his work, and one only, the author puts a question to the votaries of our science. We were amused with the question, and gratified by his own judicious though not *complete* answer to it. When drawing a just and obvious distinction between the being learned and the being "apt to teach," between knowing much and successfully communicating knowledge to the young, Mr Wood says,—"We know not whether to this faculty Phrenologists "have assigned any peculiar region of the brain, but we are "persuaded that it is a talent of a peculiar kind, which even "long practice does not always confer." Dr Spurzheim almost uses these latter words. We answer, that every human faculty, every mental quality, is and can only be manifested through the medium of some region of the brain; and that Phrenology can point to the region of the brain, or rather regions, (for, like most accomplishments, it is the result of a combination of faculties,) of this most important of any, aptness to teach; which Mr Wood is perfectly right in conclud-

* Nothing is more promising in the system of early moral training in the infant schools than an approximation to these views of social in opposition to selfish feelings. There is no place-taking in these happy and zealous seminaries; and when the firstlings of the flock about to be assembled in Edinburgh shall come to Mr Wood's more advanced school, he will be agreeably surprised to find how easily those stimuli, which he at present thinks proffered in mercy, may be dispensed with. We look forward to the pleasure of applying, in a future Number, the phrenological test to Mr Wilderspin's infant school system, and we know that it will stand it well.

ing to be an *innate* talent, as Phrenology has farther demonstrated all talents to be. Of the combination of faculties in question, the author has, with much sagacity, hit upon some of the elements himself,—we would have almost said, but for the equivouque,—without the aid of the brain. 1st, The master, says Mr Wood, must rule by *love*, and secure the affections of his pupils. This, we say, he can only do by *Benevolence* and the most untiring, *Love of Children*. 2d, He must condescend to place himself in the pupil's situation, and feel his difficulties. Phrenologie, his *Self-esteem* must be under due regulation, and must not have been pampered and inflated by scholastic ascendancies and distinctions. 3d, He must have *tact* to choose times, seasons, and circumstances, the best to impress his pupils in their various conditions. This *savoir faire* Phrenology has found connected with *Intellect*, *Imitation*, and *Secretiveness*. *Secretiveness* gives the power of concealing all that would mar the intended effect, and thereby bestows increased expression and interest on what is communicated. This, unknown to himself, is Mr Wood's chief *secret*; and if the organ is small in him, that part of Phrenology would be in danger. Of this, however, there is no risk; phrenological pathognomists, who have seen him in *actu et actu docendi*, concur in declaring, that it is impossible to imagine the natural language of the faculty in activity more unequivocally manifested. Although Mr W. stops here, Phrenology conducts us farther, and shows us that the combination for aptness to teach is yet richer. 4th, *Language*, as a faculty, is necessary to adapt expressions nicely to meaning and to the capacity of the learner; 5th, A well-regulated *Wonder*, to give increased interest to the communication of a knowledge of the works of the Creator; 6th, Hope for cheerfulness, and, 7th, Ideality for refinement; 8th, *Veneration* for religious impressiveness, and, 9th, *Conscientiousness* for the most unswerving justice, candour, and impartiality. Now, Phrenologists do assign, or, more correctly, find assigned by the Creator of man, well-marked regions of the brain for each

of these elements of that invaluable talent called aptness to teach; and more, they can point out, before he is even tried, the teacher who is gifted with it. Such men cannot be too highly prized and respected. Nothing argues worse for the staple of school-education than the fact, that its professors hold a humble grade in public estimation. It is a tacit vilification of the common curriculum, that its conductors are ridiculed as pedagogues and *dominies*,—that theirs is a situation to rise *from* instead of, as that of the instructor of youth ought to be, to rise *to*. Many have been the sneers at Mr Wood's self-degradation, as it has been called, to the despised rank of a schoolmaster. He has nobly despised that ignorant prejudice of an imperfectly-educated but self-satisfied public, and is already towering above his detractors, the stronger in his moral attitude that he has so triumphantly fought his way to that respect which, sooner or later, truth and sense and public spirit must assuredly command. But it is just in such men that we most deplore a share of that common prejudice and misdirected feeling, the reproach of the present age, which reject without adequate examination the truths of *Phrenology*;—that instrument of practical power in all human concerns,—that science which has thrown a flood of light on the previously dark subject of the human mind,—and is yet destined to elevate every system and purify every institution which has to deal with Human Nature.

Since this article was in types, we have been assured by an experienced teacher, that he daily deplores the effect of place-taking on many tempera under his charge; but, *under the present system*, knows not what to substitute for it. He added, that we had not stated the evils too strongly.

Another, only the other day, declared to his pupils, that he was so much disgusted with their envyings and tears, that he must abolish places and medals altogether!

NOTE.—On some of the views of the foregoing paper, which was read to the *Phrenological Society* by Mr Stearns, there was in the Society some difference of opinion. As it is now published to promote discussion, the WR is to be considered as not editorial.—EDITOR.

ARTICLE XII.

REMARKS ON THE CEREBRAL DEVELOPMENT OF
JOSEPH PUGH, HUNG FOR MURDER.*By Mr J. L. Leeson, Barr.*

SIR,—The first cast I shall call your attention to is that of Joseph Pugh, who was hung as a principal in one of the most atrocious murders that ever disgraced this country. Before offering any remarks on his unfortunate organisation, I shall give you a brief sketch of his history, and the leading circumstances connected with the crime for which he suffered, from the London Magazine, written by a barrister who was in the court:—

It seems that, in the neighbourhood of Market Drayton, on the borders of Shropshire and Staffordshire, there exists a very dreadfully-depraved set of people, and that a gang to the amount, as is said, of from fifty to sixty people is confederated for general purposes of plunder. This, I take, is a little exaggerated; but that it is true to a considerable degree I fully believe; namely, that the nucleus of this gang, consisting of several persons, was most closely knit by the ties of relationship, of connexion, and of neighbourhood, as well as of guilt; and the general depravity of the district enabled them, as occasion required, to add to their numbers to almost any extent. One of these persons, by name Thomas Ellison, was last year taken up for stealing potatoes; and, whilst in jail for that charge, an accusation of sheep-stealing was brought against him. The chief evidence upon which this latter charge, a capital one, depended, was that of a man, who had occasionally joined in the proceedings of the gang, named John Harrison. It became, therefore, the

object of the friends of Ellson to get this man out of the way. Old Cox, Ellson's father-in-law, determined to poison him, but could not procure it. Ann Harris, the mother of Ellson, who had married a second husband of the name of Harris, requested a neighbour to buy her sixpence worth of arsenic, "to poison that — fellow Harrison;" but being remonstrated with, she went away, promising that she would not. Poison having failed, it was determined to have recourse to more direct means; accordingly Ann Harris and old Cox subscribed fifty shillings each to hire Cox's two sons and a young fellow of the name of Pugh to put Harrison to death. Harrison lodged in the house of Pugh's father, and, it is said, occupied the same bed with him. On the night of the murder, Pugh, to use his own expression, "tied Harrison out of the house to go and steal some bacon." At a spot previously agreed upon they met the two younger Coxes, and, proceeding to a remote place, Pugh seized Harrison by the throat, while young John Cox took hold of his legs, and, throwing him down, they thus strangled him; meanwhile Robert Cox was digging the grave!

The wretched man thus disposed of, every thing remained perfectly quiet and unsuspected. It was generally supposed he had gone out of the way to avoid Ellson's trial; after the latter was acquitted, no suspicion was excited by the non-return of Harrison, and the murder was discovered by the means of Ellson himself. As soon as this fellow came out of goal, the Coxes, Pugh, and his mother, at various times, told him of what had taken place, vaunting to him how they had saved him, (that if it had not been for them he would not be there;) and the next day, when he was at his mother's, Robert Cox came thither, and said to her with oaths and abuse, "If thee doesn't give me more money I will fetch him and rear him up against the door," alluding to the murdered man!

The five prisoners were already at the bar when the writer of this article entered the court.—He thus describes

the countenances of them :—Ann Harris and the younger Coxes had nothing very repugnant in their faces ; but he observed of old Cox, (“ his countenance was very bad ; indeed, his mouth, especially, had a most revolting aspect,”) he appeared fitted to be “ the very patriarch of all thieves and scoundrels in that part of the country.” He had, undoubtedly, brought up his sons to robbery as to a trade, and he had now hired them to commit murder. Pugh was last, and he was an ill-looking fellow enough. The trial proceeded, and one of its terrible peculiarities became very soon apparent ; this was, that a vast proportion of the witnesses were of the closest kindred to the accused. The father of the murdered man was called to identify the body of his son ; but the emaciated state of it rendered it only recognisable by the clothes, although the old man said he knew it to be his son by the colour of the hair. As the principal evidence rested on the testimony of that execrable William Ellison, every thing that tended to corroborate it was had in course to for the ends of justice. Therefore the father and mother of Pugh were called on to give an account of some circumstances which took place the night the murder was committed ; and the extreme coolness with which they gave evidence against their son was exceedingly awful. Besides Ellison, who came to swear away the life of his mother, there were also his wife who was the daughter of one, and sister to the other two prisoners, and his sister, who was the daughter of the other. The female witnesses appeared somewhat impressed with the awful situation they were placed in ; but Ellison was calm, decided, and firm, in a degree which gave rise to unmingled disgust to every one who heard him. Pugh undoubtedly committed the murder for hire, and the Coxes, perhaps, might have some interest of their own mixed up with his ; but even as regarded these last, the first object had been his escape ; and his mother has distinctly dyed her hands in blood, and steeped her soul in deep guilt, solely to save him, *her child* ; yet this man had, to escape

paltry punishment, given up all five to justice, among whom were his mother, his wife's father, and two brothers, &c.

In this instance (the writer further observes) physiognomy is totally at fault; he is a fine well-looking fellow, of about twenty-five;—his story was clear, consecutive, and, in all probability, a true one:—“Each individual in the transaction very naturally informed him for whose sake the murder had been committed; Pugh appears to have bragged that it was “he who ‘ticed him out o’ feyther’s house to steal bacon, and that it “was he who had gripped um by the throat.” While this part of the evidence was going forward, the horror excited was against the perpetrators of the crime, so treacherous as it was in its conception, and so coldly cruel in the manner in which it was carried into effect. Moreover, the idea, that Pugh altogether, and the two young Coxes in part, had committed this murder for hire, was a circumstance so awfully depraved, that the story was accredited, without considering the scoundrel who was telling it.—He repented three times that his mother had told him that she and old Cox each gave fifty shillings to have Harrison murdered.

These are the general facts which transpired on the trial, and as we have only the cast of Pugh, it will be interesting to the inquirer into motives, and at the same time painful in the extreme to observe the striking corroboration between the act of this individual and his cerebral organization.

JOSEPH PUGH.

On examining the head as a whole, the first thing we have to attend to is the frightful predominance of the occipital and basilar regions compared to the sincipital and frontal, which the following measurement will render still more obvious:—

	Inches.
Mentus to Individuality,	5½
Ditto to Occiput,	5½
Ditto to Firmness,	5½
Destructiveness to Destructiveness,	6½

	Inches.
Combustiveness to Combustiveness,	5½
Secretiveness to Secretiveness,	6½
Acquisitiveness to Acquisitiveness,	6½
Ideality to Ideality,	5
Constructiveness to Constructiveness,	5½

DEVELOPMENT.

Amativeness, large.	Ideality, small.
Philoprogenitiveness, ditto.	Wit, ditto.
Inhabitiveness, ditto.	Imitation, ditto.
Adhesiveness, moderate.	Individuality, large.
Combustiveness, full.	Form, ditto.
Destructiveness, very large.	Size, ditto.
Secretiveness, large.	Weight, ditto.
Acquisitiveness, extraordinarily large.*	Celebrity, ditto.
Constructiveness, large.	Locality, ditto.
Self-esteem, very large.	Number, large.
Love of Approbation, ditto.	Order, moderate.
Cautiousness, large.	Eventuality, full.
Benevolence, moderate.	Time, ditto.
Veneration, rather large.	Tone, ditto.
Firmness, full.	Language, moderate.
Conscientiousness, moderate.	Comparisons, small.
Hope, large.	Causality, ditto.
Marvellousness, moderate.	

The first three organs we pass over, constituting the domestic group, as nothing transpired relative to them during his trial; but his lending himself as the instrument to murder his bed-fellow certainly demonstrates the weakness of the feeling, attachment. The greater number of the selfish feelings are frightfully large in this person. Who would trust his life or property to an individual so organized? Look at his powerful Self-esteem, his overwhelming Acquisitiveness, with the little Conscientiousness and intellect, and whilst we shudder at the consequences, we, as Phrenologists, could not have expected any different result than has actually taken place. To gratify his Acquisitiveness, for the paltry sum of fifty shillings he murdered an acquaintance without a shadow of provoca-

* We suspect that our correspondent has not made due allowance for the thickness of the temporal muscle in this case. It is almost always thick in hanged persons.—EDITOR.

tion. In most instances of murder taking place between associates, it is the result of deep-rooted revenge, for some supposed injury which has instigated the act, or the deadly blow has been given under the momentary impulse of passion; but the one before us is characterized by selfishness, cowardice, treachery, and deceit.

In what manner did Pugh perpetrate his horrid purpose? By taking Harrison, under a mask of mutual interest and friendship, (which his powerful Secretiveness enabled him to do,) to a dark and unfrequented field at midnight, where, in the most dastardly manner, he strangled his unsuspecting victim.—To have done this deed he required large Destructiveness, with little Conscientiousness and Benevolence, precisely as we find these organs in the cast.

It is curious to remark the powerful aid that Phrenology furnishes in tracing the nicer tints of human motives. It has been noticed, that the midnight assassin and the unfeeling incendiary have Destructiveness and Secretiveness large, but Combaticiveness generally moderate. How strikingly do Pugh's cast and the circumstances attending the deed for which he suffered corroborate these views! Combaticiveness in him is smaller than Destructiveness; and the love of concealing (from Secretiveness being large) may have suggested the private place and mode by which the murder was effected.

In announcing the murder to Ellean, he gratified his Love of Approbation and Self-esteem, by stating that it was he "that griped um by the throat;"—nor did he anticipate any thing else but their warmest applause; but this would not have been the case if his intellectual faculties had been larger, for he would have reflected, that the manner of committing the murder must be repugnant even to individuals besotted with crime, if they had much Adhesiveness and Combaticiveness.

But to return to the facts themselves: Was it any thing else than Self-esteem, acting with Cautiousness and Secretiveness, that induced Pugh, the night after the murder was commit-

ted, to remove Harrison to a more concealed spot? When he was apprehended, his large *Hope* and *Love of Approbation*, acting with *Self-esteem*, (not being influenced or directed by the higher and more humane faculties,) induced him to expose the whole affair, and attempt to save himself, and sacrifice, if possible, his depraved and dissolute companions.

In a verbatim report of the trial in the *Strewsbury* newspaper, it is stated by Ellison in his evidence, that Pugh told him, in the presence of the Coxes, that he fetched Harrison from his father's house, intending to steal some bacon, and that he took him to the Townfield, by the pinfold over against young Robert Cox, where they stopped, and John Cox the younger, and Robert Cox, came up; they then took him down to Deal's hay-stack, and told him to lie down awhile, as it was too soon to go and steal the bacon—he (Pugh) caught him by the windpipe, John Cox pressed him by the legs, while Robert was digging the ground.

In this description we have a strong illustration of a large *Individuality*, acting with large *Self-esteem* and *Love of Approbation*, (without intellect or moral feeling,) by the minute detail of a most horrid and treacherous transaction, given in a tone of levity, as if the act had been one highly praiseworthy.

It must be instructing to the moral philosopher, who desires to investigate the motives for action in different individuals, to trace how far they are compounded with *Self-esteem* and *Love of Approbation*, where these aid and excite other faculties, or repress their indulgence; and what are the effects upon characters as a whole, where these two organs preponderate, even in a well-organized being? I cannot help thinking, when the two latter organs (particularly *Self-esteem*) are largely developed, combined with large *Secretiveness*, *Acquisitiveness*, and *Destructiveness*, (as in Pugh's case) and the very little reasoning and moral faculties, that there is not a crime but what such a being would perpetrate whenever it interfered with his personal comforts and safety. He was hired to murder; but in this act he could only gratify *Self-esteem* and *Acquisitiveness*,—he chose the hour of midnight and a dark unfrequented place to do the foul deed,—and in this he could only gratify *Secretiveness*, *Cautiousness*, and

Destructiveness; he boasted of the deed—entered into the most disgusting detail of the facts, in order to please Love of Approbation, &c., with Ellson's applause. When apprehended, he forgot all his accomplices, and attempted to save himself, by turning king's evidence,—for his Self-esteem whispered the probability, and his *Hope* inspired Love of Approbation to anticipate a discharge from the magistrates, for the exposure of the circumstances; and, acting upon this impression, he went with a constable and pointed out the spot, &c.—And when called on for his defence, we find him the same unprincipled, lying, and selfish wretch as his whole preceding conduct evinced. He said "he was working the day before Harrison was missing—Harrison came home that night, and he never saw him again.—When Ann Harris brought my dinner, she said she had poisoned Harrison, and gave me and Jack Cox 50s. to bury him." In these sentences he manifests miserable deficiency of the moral sentiments of Conscientiousness and Benevolence, whilst Secretiveness, Cautiousness, Self-esteem, and Love of Approbation are exercised with all their selfish and blind energy.

His low and selfish organization became worse by associating with bad characters, having sensual and depraved habits,—leading him on from one crime to another, till, in his nineteenth year, his career was cut short.

We will draw to a conclusion an account of one of the most unnatural monsters "wearing the human form divine," and regret that such beings are ever found, as they *degrade* the very name of human nature!—

Even Burk and Hare fall short of this man!

ARTICLE XIII.

LETTER FROM AN EMINENT TEACHER IN ENGLAND TO
A GENTLEMAN IN EDINBURGH, ON THE SUBJECT OF
PHRENOLOGY.

(January 28, 1829.)

I have long thought there might be more in Phrenology
"than is dreamt of in our philosophy;" but I could not man-
ipulate. A few instructions from Dr Spurzheim will, I hope,
enable me to do this; and I will endeavour, in my sphere, to
ascertain facts to confirm or refute it. I have an advan-
tage in being able to examine the heads of pupils, who are
rather pleased than otherwise to undergo the scrutiny. You
cannot say to society—Sir—Ma'am—I wish to ascertain the
exact shape of your skull. I always felt assured that Phre-
nology, if true, left the puzzling questions of fate, free-will,
materiality, &c. just where it found them; and all we can
without it explain. How free-will can be consistent with the
foreknowledge of God, or how necessity can be reconciled
with responsibility, we really have no reason to expect we can
at this new science. I find a confirmation then, for that all
the boys who give me trouble are deficient in Veneration,
high in Self-esteem, and large in Combativeness; and several
whom I cannot feel confident on are large in Secretive-
ness and low in Conscientiousness. Dr S., from the first or-
gans in the front, pronounced an exact account of the capa-
city of one boy for learning history well, but feeling difficulty
to retain the dates. One youth, who has, with many good
qualities, vexed me excessively, whose Benevolence is very
large, and his Conscientiousness full, has depressed Venera-
tion, and Love of Approbation quite deficient. I see you
are not one of those who think ridicule the test of truth, or
that facts can be confuted by conjectures and assertions. I
must therefore add a little more. Last Saturday we were for-
tunate to obtain two human brains; and we were delighted

and interested most deeply with the dissection. I think every divine should study anatomy. He can have but an imperfect idea of the wisdom and skill of the Creator without it. We had no slicing and confusion, but a clear tracing of the wonderful mechanism of that sublime machine. And how a man can see and understand all this, and not adore a First Cause, is to me most incomprehensible. We have three more lectures yet to come, and those the most interesting; and in future, if I believe more, I shall trouble you with talking less about it.

ARTICLE XIV.

PROCEEDINGS OF THE PHRENOLOGICAL SOCIETY.

December 4, 1828.—Mr Walter Tod read the *first part* of his Essay on the Relation of Cause and Effect, and the Importance of our Belief in this Relation to the Progress, Happiness, and Virtue of Mankind. Mr Combe then read a Notice by him of Mr James Thom, the Sculptor of “Tam o’ Shanter,” and “Souter Johnnie.”

December 18.—Mr Tod read the remainder of his Essay on the Relation of Cause and Effect. A letter from Sir G. S. Mackenzie, accompanying a bust of himself, modelled by himself, was read. The thanks of the Society were voted to Sir George for the donation.

December 20.—The Society dined in Barry’s Hotel.

January 8, 1829.—Mr William Scott read an Essay on Tragedy, with some Remarks on the Character of Hamlet. Mr Combe presented a donation of five Greek skulls from Cephalonia, said to be ancient, which had been sent to him by a friend to Phrenology; and read two letters from that friend, accompanying the skulls, and giving ~~up~~ them. The Society’s thanks were voted to ~~the~~ them.

following gentlemen were admitted as ordinary members: Bindon Blood, Esq. of Cranaker, Ennis, county of Clare, Ireland, M. K. J. A., M. R. D. I.; Mr David Thomson, merchant, Edinburgh; Mr William Thomson, solicitor-at-law; Mr Hewit O. Watson, student of medicine; and Mr Robert Cox, Gorgie Mills.

January 22, 1829.—Mr Simpson read an Essay on Natural Language, by Mr William Slate.

February 5.—Mr Combe read Observations by him on the Case of William Burk, recently executed for Murder, and William Hare. The following donations from Sir G. S. Mackenzie were presented, and his observations accompanying them read:—Skulls of a sheep-dog, of a very bold spaniel, of a wild-cat, of a polecat, of a martin, of a buzzard, of a hooded crow, and of a kite; two skulls of magpies, skulls of a white or barn owl, of a brown owl, of a falcon, of a sparrowhawk, and of a hawk. The Society's thanks were voted to Sir G. S. Mackenzie.

February 19.—Dr Andrew Combe read Observations on Mental Derangement and some of its Causes. The Society's thanks were voted to Dr Combe.

March 5.—Mr Simpson read Observations by him on the System of Education followed at the Edinburgh Sessional Daily School.

March 19.—Mr Simpson read an essay entitled, "Some Reasons for conjecturing that the Faculty hitherto named 'Tune' would be more philosophically denominated the 'Faculty of Sound.'" Mr Joseph presented to the Society casts of the heads of Hare and Burk, moulded by him. The thanks of the Society were returned to Mr Joseph for the donation.

OFFICE-BEARERS.—Dr Andrew Combe, *President*.—William Ritchie, George Combe, James Law, Patrick Neill, *Vice-Presidents*.—William Bonar, James Tod, George Lyon, Dr B. Hamilton, Walter Tod, John Anderson, jun., *Council*.—William Scott, *Secretary*.—Robert Cox, *Keeper of Museum*.—Donald Campbell, *Clerk*.

ARTICLE XV.

A Lecture upon the Truth, Reasonableness, and Utility of the Doctrines of Phrenology. By the Editor of the Chesterfield Gazette. Second Edition. London; Longman & Co. &c. pp. 26.

WE have frequently said that one of the most unequivocal signs that Phrenology is destined to become the established philosophy of the next generation is afforded by the increasing number of sound-thinking and talented men, in various parts of the kingdom, who are appearing as its advocates; and the pamphlet before us forms another valuable indication of the march of truth in addition to those formerly recorded. There is a sober earnestness, a soundness of judgment, and a clear philosophical power of exposition in this little work, which make us hope that the author will extend his labours in the cause of Phrenology. His line of argument is the following:—

To suppose the brain to be the organ of thought is to coincide in opinion with all mankind: This is besides probable, inasmuch as the mind is affected through the medium of the body. The head in every case, wherein there is no disease indicates the conformation of the brain, and the skull takes its shape from the brain. Once admitting the brain to be the organ of thought, there is nothing unreasonable or absurd in supposing different parts of the brain to be the seats of different mental powers; but, on the contrary, it is reasonable, inasmuch as it explains difficulties otherwise inexplicable. Heads are differently shaped; and, by this difference in shape, men are, and always have been, partly governed in their opinions. The doctrines, although corroborated by reason and experience, yet rest upon the evidence of facts, and cannot be gainsayed by any argument

founded upon less certain data. The author then examines the objections of the anatomist, next those of the uninitiated, and shows that the science neither is materialism, nor leads to fatalism; and finally explains the uses to which it may be made subservient in the moral and intellectual education of man.

This is a mere summary of the topics treated of, which are well and briefly handled. The following extract gives a fair specimen of the author's powers:—

"No Phrenologist was ever wild enough to assert, that education and training were altogether ineffectual in their system of philosophy. Phrenologists not only hold, that the power of the mind as well as that of the body is increased by exercise, but that the individual faculties of the mind as well as the individual members of the body are rendered more vigorous by employment. We know that if, from infancy, one arm only were used, that in youth there would be a wide difference in the capabilities and strength of these two members, originally formed alike by nature; but, indeed, it has never been denied, that the exercise of any one mental faculty increases its power; and it is in the facility with which this may be applied, especially in the improvement of moral character, that the doctrines of Phrenology possess so decided a superiority over every other system of mental philosophy.

"You all know, or, at least, you may all know, if you will think for a moment, that the same action not only proceeds from different causes in different individuals, but that an action may proceed from different causes in the same individual. Now, here lay the difficulty, or rather the impossibility, according to the old system of philosophy—which judged only from actions—of applying education to the restraining of evil propensities and the encouragement of the good. I shall suppose, as an illustration of what I have been saying, that a child breaks a china jar, and does not instantly come to its mother or guardian, and say, I have broken this or that china jar, but allows it to be supposed that it was broken by the cat, or perhaps permits a servant to be blamed for an awkwardness of which he or she was not guilty. Now, this conduct on the part of the child might be the result of quite different mental imperfections. It might result from a love of concealment,—a want of openness,—for which there is a distinct organ, according to the Phrenologists, called Secretiveness; it might result from extreme Self-esteem, which cannot suffer any humiliation or imputed error of any kind; or it might result from extreme timidity. Either of these, or two of these, or all of these conjoined, might be the cause of the child's conduct; and it probably might also imply a want of Benevolence in allowing another to be blamed unjustly. Now, how, unless by the doctrines of Phrenology, is

" this to be discovered ? and how is education (I mean, at present,
 " moral education,) to be directed in order to restrain the propensity
 " to which the fault has been owing ? Here is an action committed,
 " and the concealment implies some imperfection in character,—for
 " want of openness, want of Benevolence, or inordinate Self-esteem,
 " are each of them faults in character. Without Phrenology no
 " certain remedy can be applied. It is as if the body were afflicted
 " with a disease of the nature of which physicians are ignorant ;
 " various remedies are attempted, but, unless the true origin of the
 " malady be known, no remedy can be applied with any good pros-
 " pect of success. So it is in the case I have just supposed ; but
 " with a knowledge of Phrenology the root of the evil is at once
 " struck at. If a love of concealment be the imperfection, that sys-
 " tem of training must be followed which will encourage an opposite
 " disposition. This may be partly effected by addressing the rea-
 " soning powers, if they be sufficiently strong, of which Phrenology
 " can judge ; or, by encouraging the benevolent feelings, which have
 " ever a tendency to counteract all sentiments that are mean, and
 " to neutralize every feeling of selfishness. If the imperfection be
 " owing to an inordinate Self-esteem, then, however difficult it may
 " be, we know that it is possible, by time and management, to in-
 " spire one with more moderate ideas of one's self ; besides, were
 " these doctrines thoroughly believed and intended to be acted upon,
 " persons of talent and judgment would give their minds to the con-
 " sideration of that species of moral education which this system
 " would demand in all the varieties of human character. But it
 " may be laid down as a certain position, that the faculties of the
 " mind can be acted upon in the same way as the organs of the
 " body ; that they may be encouraged by exercise, and repressed by
 " disuse ; and that, were the economy of the mind as much reduced
 " to certain principles as the economy of the body, a deep and wide
 " influence would be exerted on man's moral condition."

The author's concluding remarks express the true spirit
 of an enlightened Phrenologist :—" To prove," says he, " its
 " truth or its falsity by observation lies with you ; there is nothing
 " in it hidden,—no freemasonry, no jugglery. The power of mak-
 " ing observations is open to every one ; it is not necessary to be
 " either a metaphysician or an anatomist in order to make them.
 " It is this that I invite you to do."

of were discovered, and from this house she was driven away, in consequence of a fourth pregnancy. Soon after delivery she was admitted into this hospital, where she died, now in her thirty-second year.

The whole brain in this case weighed considerably less than the average weight of the brains of females. The cerebrum weighed only 2lb. 10oz. some grains, while the weight of the cerebellum, without medulla oblongata, or pons, was pronounced, with great surprise, by these gentlemen, to be no less than about 5½oz., a size which they stated was not only proportionally but absolutely greater than any they had yet met with in the course of their investigations either in man or woman; which coincidence, by the by, we expected from the uniformly candid conduct of Professor C., would have been mentioned by him, as on a former occasion, to the students present.

The above are only a few of the prominent circumstances of this poor woman's history, hurriedly drawn up while fresh on my memory, which, should they be considered insufficient to establish the coincidence in question, may be easily increased by examining any of the servants who lived with her in the families mentioned.

The forehead of this woman appeared, while she lived, low and sloping, while the greater proportion of cerebral matter seemed to be situated above and behind her ears.

Wishing all prosperity to the Phrenologists, so far as their doctrines are founded on truth, I am, Sir, your most obedient servant,

W. G. D.,

Edinburgh, 3d May, 1828.

NOTICES.

DR SPURZHEIM has lectured in Birmingham, Sheffield, and Wakefield, with great success since our last publication. We anticipate the greatest advantages from these exertions,—indeed some of them are already apparent. Mr Montgomery, the poet

Till the age of fifteen she displayed no other dispositions than those of an amiable, good-tempered girl; however, she had not been much under the eye of her stepmother for two years previous to this age, from whom I got the following information:—

When nearly sixteen years of age she became servant in the family of Sir James Ferguson, and the first report of her conduct, made by the housekeeper to her stepmother, was, "that she was in every respect a good servant, but that she seemed too fond of the society of the men-servants in the hall;" and before the end of a year she was dismissed the house in consequence of becoming pregnant, being not yet seventeen years of age.

Between this period and her twenty-first year little that is precise is known of her conduct by my informant. At this time she was again admitted into Sir James's establishment, at the recommendation of the housekeeper, who considered her "a weak but good-hearted girl, who would be steadier as she grew older." Unfortunately, however, the disposition previously complained of was again manifested; and, becoming a second time pregnant, she was again dismissed the house.

She subsequently became servant to Mrs Johnston in New-haven; but of her conduct while here her friends know nothing, (having determined to take no further notice of her,) except that during this time she had a third child. So convinced was her father of the indomitable nature of this propensity in her, that when requested to admit her into his house, he refused, declaring, that "taking her in would be an inlet to a wickedness," and often wished "she had died when she was born." I ought to mention, that he and all his other children are decent and well-behaved people; and, from the accounts I have received, they never showed this woman, in their conduct, any bad example.

Leaving Newhaven, she entered the service of a gentleman in Broughton Street, where for a time she appeared a mild good servant; but at length her habits formerly complained

of were discovered, and from this house she was driven away, in consequence of a fourth pregnancy. Soon after delivery she was admitted into this hospital, where she died, now in her thirty-second year.

The whole brain in this case weighed considerably less than the average weight of the brains of females. The cerebrum weighed only 2lb. 10oz. some grains, while the weight of the cerebellum, without medulla oblongata, or pons, was pronounced, with great surprise, by these gentlemen, to be no less than about 5½oz., a size which they stated was not only proportionally but absolutely greater than any they had yet met with in the course of their investigations either in man or woman; which coincidence, by the by, we expected from the uniformly candid conduct of Professor C., would have been mentioned by him, as on a former occasion, to the students present.

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NOTICES.

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attacked the account of the "Phrenology of the Hindoos" given by Dr Murray Patterson; and in a Sheffield newspaper an answer was given to his objections, which, for knowledge of the science and of human nature, extent of information concerning the Hindoo character, clearness of statement and power of reasoning, affords the Phrenologists great reason to be pleased with their champion. We regret that the length of the opposed articles precluded our transferring them to our pages.—

We observed also in the Wakefield newspaper a high encomium on Dr Spurzheim's lectures, with a distinct avowal of conversion to the cause on the part of the editor, after deliberate attention to the evidence; and in this Number we have already noticed an able lecture on Phrenology by the editor of the Chesterfield Gazette, who also now advocates the doctrines. In addition to these accessions, we have great pleasure in noticing that the able editor of the Dundee Advertiser has avowedly declared himself a Phrenologist; and that the editor of the Glasgow Free Press, whose talents and enterprise are well known to the public, has followed the same example. These are the results of inquiry, and prove the force of truth in overcoming prejudice and ensuring success to a sound philosophy.

The notice of Dr Spurzheim on Education is unavoidably postponed till our next publication.

DUNFERMLINE.—A Phrenological Society was founded here in December last.

FLORENCE.—Professor Uccelli has been removed from his chair in the University of Florence, for having dedicated two volumes out of six of a medical work, published by him, to an exposition and defence of Phrenology. He has many supporters among the medical men.

We hear that Mr Dewhurst intends to deliver several courses of lectures on Phrenology at the Literary Institutions, London.

Mr G. COMPTON has completed his elementary course of lectures in Edinburgh, which commenced on the 5th January, and has received an invitation to deliver a course of lectures in Dublin in April, 1829.

The next Number of this Journal will appear on 1st August.

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