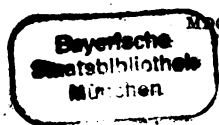


THE
PHRENOLOGICAL JOURNAL,
AND
MAGAZINE OF MORAL SCIENCE,
FOR THE YEAR 1844.
VOL. XVII.
OR
VOL. VII. OF THE NEW SERIES.

Quiconque a une trop haute idée de la force et de la justesse de ses raisonnemens pour se croire obligé de les soumettre à une expérience mille et mille fois répétée, ne perfectionnera jamais la physiologie du cerveau.—GALL.

The first business of philosophy is to account for things as they are; and till our theories will do this, they ought not to be the ground of any practical conclusion.—MALTEUS.

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To the Binder.

Insert Dr Gall's portrait opposite page 305.

THE
PHRENOLOGICAL JOURNAL.

No. LXXVIII.

JANUARY, 1844.

NEW SERIES.—No. XXV.

I. MISCELLANEOUS PAPERS.

- I. *On School-Flogging, considered in reference to its Effect on Boys of different Temperaments.* By Mr E. J. HYTCHE.

THE prevalent ignorance of the constitution of man cannot be more strikingly illustrated than by a reference to the methods adopted for the development of the mental faculties. The effects of this ignorance are not limited to any period of life; for, in tracing our own histories, we perceive that at every era we have been subject to external influences which were calculated to retard rather than accelerate the growth of mind. But at no period have these mal-influences been more powerful than during the time allotted to school-training; for then we were the passive victims of the unskilfulness of professed educationists—unskilful, because necessarily devoid of that knowledge which is the pre-requisite of success. It is to the ignorance of schoolmasters that we must ascribe the use which has been so universally made by them of flogging. For had these hard-working men been aware that it is as natural for a well-developed organ to act without compulsion, as it is for the well-strung sinew to delight in displaying its vigour, they could not have imagined that the fear of disgrace or pain would incite, when the most powerful of all motives—the pleasure of exercise—was found unavailing. Moreover, had teachers appealed to facts, they would have perceived that, as there are idiosyncrasies in the powers of assimilation and digestion, so there are natural differences in mental power, varying from the capacity of an idiot to the grasp of a Franklin. And the same reason which precludes the punishment of those who possess naturally weak digestive organs—namely, that the inability was *not* self-caused—would have prevented the chastisement of those who, like Mr Combe,

possessed feeble calculating power, or, like Gall, were ill-fitted to appreciate outline. Mrs Maclean, then, uttered a philosophic axiom, when, referring to the principles, or *no*-principles, displayed in mental culture, she said—

“ How much they suffer from our faults,
How much from our mistakes;
How often, too, mistaken zeal
A pupil's misery makes ! ”

The disuse of flogging appears to be a necessary deduction from Phrenology: and this inference becomes strengthened when the question is considered in relation to those temperamental constitutions which are traceable in every school. If we examine a school, the first feature observed is the marked differences in temperament. Nor is this a worthless feature; for according to the kind of temperament is the development of a specific class of organs.* I shall therefore discuss the effect of punishment on each kind of temperament, first dividing my subjects into three classes, namely, the sanguine, the lymphatic, and the nervo-bilious.

The most prevalent temperament in schools is the sanguineous, predominating, as it does, in 70 out of every 100 boys. In connection with this temperament, there is found a great tendency to physical exercises, accompanied with quickness in performing feats of muscular dexterity. In the school, vacuity or wandering of mind is displayed; the thoughts cannot be fixed on study; and, whilst the body is restless, the intellect appears lazy and dormant. Study is sometimes commenced with vigour, and a determination to succeed; but the fixity of intellect cannot be long retained, and the body solicits, if not demands, that action which is a part of its food. Transfer the boy to the play-ground, and all his faculties become alive; ceasing to be the dunce, he is the recognised dux, and affords sure evidence that the power to do, and the will to do, are rarely separate. One fact, however, is observable—that amidst this ultra-activity, the exercise to which he is prone is that which necessitates muscular action; and that for *direct* mental employment he exhibits similar disinclination to that which he displayed in school. The truth is, the sanguine temperament does impart an irrepressible proneness to physical exercises; and I have never yet met a person in whom it predominated, who, whatever his intellect, could study, unless he had *first* partially tired his physical system by active exercise.

As regards intellectual development, boys in whom this temperament prevails rarely possess much *size* of the reflect-

* This broad statement we think insufficiently warranted by facts.—EDITOR.

ing group, but the organs of perception are usually large. Hence it is that the majority of school-boys are fonder of facts than of metaphysical subtleties, and exhibit a deeper acquaintance with external nature than with books. The organs of Alimentiveness, Approbateness, and Combateness, are usually found large in boys of the sanguine temperament; for the very pursuits to which they are inclined, by administering to, are calculated to increase the power, of these organs. Adhesiveness is also generally found well developed. These organs indicate the existence of an energy which makes them too earnest to do things by halves, and hence they perform every thing or refrain altogether. Now, when a lad with these characteristics is chastised, it is rarely for want of activity, or because he is obstinate or self-willed; but usually because, disregarding the lesson assigned, he evinces that he would rather be engaged in bird-nesting than in conning the brain-confusing rules of Lindley Murray. The fact then is, disguise it as we may, that the sanguineous are chastised for obeying natural and healthy impulses, and that which is an innate excellence, fitting them, as it does, to cope with natural obstacles, is deemed a species of crime; and thus the judgment of Roger Ascham was not the decision of prejudice—"The wisest of your great beaters do as oft punish nature as they do correct faults, yea, many times the better nature is sorer punished." And what is the result? Lads with the organization predicated, perceive that an attempt is being made to destroy their *individuality*, and conform them to some ideal model, with which, from its contrariety to their taste, they have no sympathy. Combateness awakens to resist the aggression, and becomes a prominent feature from its continuous action, until, in the sequel, the animal organs, ever difficult to govern, are rendered unduly active, if not rampant. Thus, then, as regards the sanguine temperament, it is shewn that to prescribe flogging is like attempting to drive out of the system one disease by introducing the virus of another, whereby the first is not only left untouched, but we find two diseases rioting in the system instead of one only. Such is the quackery of education, of all quackeries the worst, because irremediable.

And the result which is predicable of the sanguineous is illustrated by the second class—that is, the lymphatic. The per-centage of this temperament is about 20. In this case, there is both physical lethargy and mental apathy, and this dead level is rarely altered by those occasional excitements to which other lads are subject. During school hours, if not asleep, they are drowsy; if spoken to, they in vain attempt to

comprehend your meaning; and for them there is no opiate like a book. If they succeed in learning a lesson, they stammer it out half asleep, and rarely retain the impression. Unlike the sanguineous, for the lymphatic the play-ground has no attraction; the very fact that sports and pastimes demand bodily exertion, includes a reason why he refrains. Whether, then, in the play-ground or school, he is in a dormant state; and, like the boa constrictor, he appears to possess only sufficient energy to awake and eat, and then to sleep again.

Now, as a means of inciting this sluggish temperament, flogging is altogether inoperative, at least for good. It does not succeed even in awakening the latent animal passions to resent; for the very fact that resistance presupposes considerable exertion, at once quiets the irritation of the violated feelings. Moreover, instead of any improvement being effected in the character, it is necessarily deteriorated; and the lethargy which was innate becomes cultured instead of repressed. For, as the lymphatic are unable to bear fatigue without recourse to sleep, drowsiness usually supervenes on flogging; and thus the inactivity of the temperament becomes deepened by the temporary excitement. To say, then, nothing of the extreme cruelty in "punishing, as we often do, rather the weakness of nature than the fault of the scholar,"* we perceive that no remedy was ever less calculated to remove a chronic disease, than is flogging to overcome the lethargy blended in the lymphatic temperament.

The remaining class to be considered is the nervo-bilious. In lads *under fourteen*, the average is scarcely 5 per cent. This is essentially the temperament of *mental*, as the sanguineous is of *physical* action. The intellect, if not manly in grasp, is at least so in pursuit: no pleasure equals that of study; physical exercise is neglected, and the brain is tasked to the utmost. Boys of this character are never happy except when engaged with their books; they read during their meals; books are their bed-companions; never behind, but always before, with their lessons, they evince that, with a temperament like theirs, if there be mental power, it *must* work. This procedure unhappily precludes physical education. If the lymphatic boy slinks from the play-ground, it is because he loves sleep; but if the nervo-bilious relinquishes it, it is because it prevents study.

In this case, at least, it will be admitted that no stimuli are required—least of all, those which are founded on anticipations of pain. Training, indeed, is desirable; but to be sound,

* See Roger Ascham's "Schoolmaster," wherein is a valuable section on the mental injuries engendered by school flogging.

it should be based on direction rather than excitement ; and the due development of the physical structure, without which the brain ill-nourished must decline, should be the principal object. But yet excitements are applied, as if the natural tendencies were not sufficient without being lashed into a fever-heat. It is true that the appeal is chiefly addressed to Approbativeness ; but, inasmuch as the principle of corporal punishment is known to be recognised, and its practical use occurs daily, there is a possibility before him, and Cautiousness is too ready to insinuate, that *he* too may be a victim : knowing, that unless the lesson be acquired, chastisement will ensue, the learner tasks every faculty to the uttermost to preclude the anticipated disgrace. And thus he is seen with hectic flush, a thin unfleshy cheek, and an unnaturally bright eye—all telling that the brain never sleeps, that it has been fed at the expense of the body, and that, as a consequence, consumption will speedily claim another victim. Well would it be if teachers recollected that such intellect needs no forcing-house ; and that to stimulate the naturally too active brain is to educate it for the madhouse or the grave.

Thus it appears that school-flogging is essentially injurious to every temperament, and more calculated to enfeeble the mind than to increase its powers. Nor would it be too much to affirm that it has destroyed the energies of thousands ; in the one case, by breaking down Hope and Approbativeness—the best incitors of the backward ; and in the other, by causing the brain to be tasked beyond the natural power, so that, at least, it displayed the fatuity of senility in early youth. Cardinal Wolsey, therefore, merely noted a fact when, in inditing the rules of a school which he founded, he said—“ One point that we should think proper to be noticed as of first importance is, that the tender age of youth should never be urged with severe blows ; for, by this injurious treatment, all sprightliness of genius either is destroyed, or is, at any rate, considerably damped.” Happy for the world will it be when this doctrine is reduced to practice.

To indicate some of the tendencies of school-flogging, I shall relate two cases ; one of which reached my own observation, and the other was noted in the course of reading. With temperaments directly opposite, and characters equally diverse, the results were deplorable ; and both traced much that was undesirable in their characters to the evil influence of school-flogging.

C. A. possessed the lymphatic temperament, with a dash of the sanguineous. He manifested no intellectual energy ; and

his perceptive organs, though large, were too sluggish to acquire the simplest lesson—in fact, immediately upon trying to learn a task, he went to sleep. Having an invincible repugnance to bodily exercise, the time employed by his class-mates in the play-ground was devoted by C. A. to sleep. His teacher knew nothing of mental philosophy—his educational creed being comprised in a few words—“If a boy *don't* learn, it is simply because he *won't* learn.” Acting on this theory, and being naturally in temper a Wackford Squeers, whenever a boy had not acquired the lesson assigned, he was immediately lashed to the back of another boy, and flogged. For the space of two years C. A. underwent this punishment never less than once a-day, and often thrice. In addition to the general absence of mental vigour, he had a defect which he has not overcome to this day—that inability to calculate which a phrenologist would predicate from his small organ of Number. His teacher, however, knowing nothing of innate deficiencies, referred the inability to obstinacy—and the customary remedy was employed. As might be expected, chastisement did not strengthen the feeble organs; but, on the contrary, the faculties became perceptibly less active, and, as he believes, positively stunted. He complained of a haziness of perception, which prevented the least mental application; and he learnt nothing, because he understood nothing.

Nor was the influence of punishment on Cautiousness of a more satisfactory character. Each morning C. A. might be found at the entrance to the school an hour before the commencement of the business of the day, in order that he might creep into his class unnoticed. Whilst standing by the door, he would be found with pale cheek and stertorous breath; cold, indeed, through fear, in the heat of summer. Cautiousness never slumbered, and at length he appeared to have scarcely any instinct save fear. He became also a somnambulist. Every night, and generally several times in the same night, he arose from his bed, and with fierce gesticulations flogged the self-created image of his teacher. The day-scenes, also, were reproduced in his dreams: Cautiousness never tired, not even during sleep. The physical system, of course, became deteriorated: acid eructations, and sick headaches, from which he was never free, indicated that the digestive organs had ceased to fulfil their functions. Such, then, were the evil results of *attempting*—vain task!—to coerce, instead of to educe, the faculties.

I will now consider the effects of school-flogging as illustrated by one in whom there was the sanguine-bilious temperament—a combination which indicates an equal bias to

bodily and mental action : I refer to Martin Luther. In speaking of his boyhood, Luther writes—" My parents used me very harshly, and rendered me very timid. They thoroughly believed that they were doing me good : *but they could not discriminate between minds differently constituted.* My mother chastised me one day so severely that the blood issued for some time." According to Merle D'Aubigne, he was treated even more harshly at school ; for although fond of study, he was equally fond of play, and sometimes preferred rambling in the woods of Eisenach to learning his lessons. To repress this truant disposition, Luther was flogged almost daily : on one occasion punishment was inflicted fifteen times successively. At first the organ of Cautiousness was alone affected ; and he, who afterwards laughed at the thunders of the Vatican, shrunk from the presence of a superior, and drew his breath inly when addressed by his teacher. Referring to this period in after-times, he said—" My heart was doubtless rendered timid by the threats and tyranny of my master to which I was exposed." But at length this impression wore off ; repetition of punishment steeled him against fear or disgrace ; and he was accustomed to ascribe his remarkable firmness of character to the power of repressing his feelings which he acquired at school. The teacher of Luther observed the change—how the boy, fond of praise, became careless of censure—but, like many teachers in the present century, unable to perceive that they themselves have trained the animal organs, exclaimed—" It is of no avail that Martin is flogged ; for he only becomes the more obstinate the more he is chastised." But let not us, who peruse this chapter, in the life of the monk of Wittenberg, forget that if his animal organs sometimes became ungovernable, at least his teachers had done nothing to tame his fiery spirit. It is in vain for us to treat men like brutes, and expect that they shall act like angels.

I have thus described the effects of school-flogging on boys of various and opposite dispositions ; and shewn that in every instance the result has been unmitigated evil. It does not enter into my view to consider the question in all its varied aspects ; but in shewing that it enfeebles the mind, that it trains men to become wild beasts, and that it consigns thousands to a premature grave, I have adduced sufficient evidence to prove that its infliction is most hurtful, and that John Locke, who shrunk from the idea of school-flogging as men shrink from a venomous reptile, was not actuated by any unreasoning impulse. Let these facts have but due weight, and flogging must cease without, as it already has *within*, lu-

natic asylums. Remembering that the will to do, and the power to do, are not necessarily combined, kindness will supplant force, and we shall train rather than coerce; and it will be found, as it has ever been found in past ages, that, to use the eloquent language of Dickens, "men are best ruled by the strong heart, and not by the strong, though immeasurably weaker, hand!"

BRUNSWICK TERRACE, ISLINGTON,
October 1843.

II. *Mr Spencer Hall and the "New Organs."* By Mr W. R. Lowe, Wolverhampton.

For the last two years few subjects have more agitated the public mind than Mesmerism; and in consequence of the alleged ability to excite the various cerebral organs during the mesmeric trance, without the consciousness of the subject operated upon, phrenologists, as a body, have perhaps felt more interested in the investigation of mesmeric phenomena than any other class of individuals. There are doubtless believers in Mesmerism who are not phrenologists; and, *vice versa*, that there are phrenologists of highly respectable character and attainments who are not mesmerists, is equally undeniable. There are also believers in both sciences (if Mesmerism, in its present little understood and unsystematized condition, can lay claim to that appellation), who yet refuse to believe the applicability and importance of the one as a means of confirming the other. Still it may, I imagine, be stated as a fact, that the great majority of those who have paid attention to the two subjects, consider them not only to be closely allied, but to shed a reciprocal light upon each other; the mesmeric excitation of different portions of the brain, and the correspondent evolution of the mental manifestations without either the will or consciousness of the party operated upon, proving alike the reality of that abnormal condition called "the mesmeric trance," and the correctness of the phrenological localization of the various mental organs. This class of investigators (to which, after much examination and thought, though once perhaps something more than a sceptic, I must now confess my adherence), deem mesmeric excitation, if not the only, at least the best, means of discovering and actually demonstrating the functions of the various portions of the mind's central apparatus,—the grand tribunal before which the claims of every candidate for admission into the list of the primitive faculties can best be examined,—the

experimentum crucis which will decide more satisfactorily than the most elaborate reasonings, the number and nature of those various simple organs, which, in the complicated machinery of the brain, forge and evolve our various thoughts, feelings, and emotions. That the greatest caution is necessary in observing the phenomena presented, as well as the precise portion of the cranial surface on contact with which those phenomena are produced, is of course admitted; and that imagination should have as *little*, and the most jealous reasoning as *much* as possible to do in drawing conclusions from the phenomena observed, is with equal readiness conceded. Still, after witnessing *many*, and performing *some* experiments on this subject (all of which tend to the same conclusion), I am led to believe with Mr Spencer Hall, that the number of the primitive cerebral functions is very considerably greater than phrenologists generally have been in the habit of imagining. That this number is as large as Mr Hall considers it, I am certainly not prepared to admit; not, however, from want of confidence in that gentleman's observations, but because I have not been privileged to witness *all* the experiments by which he has been led to his conclusions—and on a subject so mysterious and startling as this, it is prudent at least not to believe more than one's own opportunities have afforded the means of testing. If it be an error at all, it is, in matters of scientific research, erring on the right side, to believe too little rather than *too much*; though, in all probability, had my means of observing been as great as Mr Hall's, my belief might have increased in the same ratio. The object of this article is, however, not to speak of belief, but to detail (and that not in a dogmatical spirit) some few experiments which I have witnessed, and which certainly prove one of two things; viz. either that Mesmerism *does not confirm Phrenology at all*, or that, *if it does, it establishes, in addition, the subdivision of most of our present organs*. Take, for instance, that of Colour. I had the pleasure of seeing Mr Hall's experiments on one of his patients in Wolverhampton, and this not one of his co-travelling subjects (for these, however respectable themselves, are always unsatisfactory when they afford the *only* evidence adduced), but a very respectable gentleman from this immediate neighbourhood, whose character for trustworthiness was far better known to many of the spectators than to Mr Hall himself. On the organ of Colour being touched (combined, I *think*, with Language), he suddenly exclaimed, "It's black; all black;" but on the operator very slightly moving his finger, he said "No, it's blue;" and on the tip of his finger being again slightly moved, and the operator saying interrogatively, "Oh! it's blue,

is it?" he replied with a smile, "No; who ever heard talk of a blue rose? It's red, to be sure." So with a highly accomplished lady, with whom I was successful in inducing mesmeric sleep, and calling forth the cerebral manifestations; on touching the same organ, she exclaimed, "What a beautiful rose! Oh! what a lovely red!" and on immediately moving the apex of the little finger which was in contact with the organ, she continued in the same breath,—“And what splendid *green* leaves!” Other similar cases might be adduced, but it is needless to multiply examples. Now, the only conclusion which the writer's Causality enables him to draw from these cases is this;—that *if* the fact of the perception of colour being excited on touching the appropriate organ, establish the correctness of the localization of that organ, so it with equal force establishes the second view likewise,—viz., that particular portions of that hitherto-considered single organ, are engaged in the perception of single or individual colours. This idea, too, supposing it to be correct (which further investigation must determine), seems to explain a series of cases, quite inexplicable by Phrenology as at present generally received. I allude to those of individuals who can perhaps perceive and appreciate colours generally, but whose perception of some one particular shade (green, yellow, or other) is alone defective. It is well known that such cases are of frequent occurrence; and in discussing with the opponents in this neighbourhood the phrenological doctrine, that the fact of some persons being able to discriminate forms, but not tunes—or forms and numbers, but not colours (as in Mr Milne's case, for example)—was at variance with the idea of the brain being a single organ, and only explicable by supposing these distinct kinds of perception to be dependent on distinct organs, I have frequently been met by the anti-phrenologists with a reference to this class of cases; it having been argued by them that phrenologists should admit the little portion, designated the organ of Colour, to contain really a distinct organ for every colour, or else that their whole reasoning on the subject of distinct kinds of perception requiring distinct organs must fall to the ground. The former inference was considered by them a *reductio ad absurdum*; but if the idea suggested by the mesmeric excitation of this portion of the head prove correct, then not only do these cases not militate against Phrenology, but they may be rationally explained thereby; for if the perception of distinct colours be dependent upon distinct portions or fibres of that part of the cerebral mass called the organ of Colour, then the inability to perceive particular colours may be consequent upon a deficient development of some of those

particular fibres or subdivisions, while the others may be of average or even unusual capacity.

Alimentiveness may next be mentioned. On touching the lower portion usually assigned to this organ, the feeling of hunger is excited, and the patient calls for food, or imagines himself eating; but on moving the finger slightly upwards and forwards, hunger gives place to thirst, and instead of food, the patient earnestly desires to drink. It must be observed, further, that these manifestations do not vary, but appear to be uniform on touching the same parts in different persons; at least, in each of the four cases which I have had an opportunity of scrutinizing such has been the fact, and Mr Hall informs me that he has found it universally so. If, then, the first fact, that, on touching the organ of Alimentiveness, its function is called into exercise, be considered a proof of the correctness of the function attributed to that portion of the brain, then, by parity of reasoning, the second fact, that two separate portions of that organ manifest two separate functions, is conclusive as to the view here contended for, viz. that Alimentiveness in reality includes two organs, the one bearing reference to meat and the other to drink. If it prove anything, it proves both.

Once again, Philoprogenitiveness may be adduced. On touching, during mesmeric sleep, the lower portion of the space marked "No 2," the patients have in every case that I have yet witnessed, manifested Philoprogenitiveness *properly so called*; but on raising the finger slightly, instead of fondling or nursing imaginary children (as in the former manifestations), it has been obvious that some favourite animals—dogs, cats, or some others—have been the objects engaging their attention and affections. Here again, then, if any importance whatever be attached to mesmeric excitation, the only inference which we are justified in drawing seems to be, that these two portions of brain have separate functions, the one bearing reference to children, and the other to pet animals, &c. Of course, further experiments are necessary, either to confirm or overthrow these discoveries; but should they be established, which I have no reason to doubt, a considerable amplification of the organs already recognised by phrenologists must be the result.

In connexion with this supposed "pet organ," I may mention, in confirmation, an interesting non-mesmeric fact which came under my own observation. At a dinner party in this neighbourhood, the subjects of Phrenology and Mesmerism being introduced, a Swedish gentleman who happened to be present, and of whom I knew nothing, requested me to feel

a prominence at the back of his head. This I did; and finding that the upper portion of Philoprogenitiveness was enormously developed, while the lower part was not so, informed him of the fact, adding that though the protuberance was in the region of Philoprogenitiveness, yet if there were any truth in the revelations of Phreno-mesmerism, the function would shew itself in the love of pets, rather than in any remarkable attachment to children. He seemed astonished, and observed that "he *regretted* to have to acknowledge that I was correct; he *regretted* it, because he detested Phrenology, but he was bound in honour to admit the correctness of the predication." The love of pets in this gentleman, as I subsequently learned, amounts almost to a monomania; for in addition to dogs, cats, &c., he has actually a collection of pet *mice* and *spiders* which he daily feeds with his own hands. He is not, however, remarkable for his attachment to children. This, being an isolated case, is not expected to be invested with very much importance; but it is related with the hope that it may be taken for just what it is worth, and that it may be the means of inducing other phrenologists to multiply and record their observations on the subject.

Other instances of mesmeric excitation suggesting the subdivision of the present organs, might be adduced (such, for instance, as Ideality, on touching one portion of which the patient is led to expatiate in glowing terms on the beauties of some piece of poetry or literary composition, while another portion directs the channel of thought to the loveliness of the *earth*, and a third to the glories of the *sky*); but these would only increase the prolixity of this communication, and enough has been already stated to establish what is here advocated; viz. that if Mesmerism confirm Phrenology at all, it establishes these subdivisions of the present organs as satisfactorily as it does the general functions of those organs themselves; and that, if phrenologists act consistently, they must either dispense with the evidence of Mesmerism *in toto*, or admit its validity in both cases. In penning this article, I am not writing as the apologist of Mr Hall, for I repeat that, not having seen all that gentleman's cases, I am not prepared to go to the same extent as himself, though all who have witnessed any of his experiments, must be convinced of his patience in investigation, his zeal, and his trustworthiness. Perhaps I may be permitted once again to impress investigators with a sense of the paramount importance of extreme caution and precision in ascertaining the parts of the head touched, and recording the manifestations thereby educed; as well as the propriety of interchanging notes with other obser-

vers (or societies where these exist), in order that all who feel sufficiently interested to investigate the subject, may thus have opportunities of repeating and verifying any experiments that may be made. It may also be well, as soon as a sufficient number of careful observations have been recorded, to fill up charts, marking the relative situations of the parts on touching which certain manifestations have been caused, for the guidance of other investigators in ascertaining how far these results are uniform or the reverse.

It cannot be denied, that this almost unlimited multiplication of the cerebral organs will most materially increase the difficulties in the way of the practical application of Phrenology (a department already beset with difficulties enough); and on this account alone, if on no other, extreme jealousy should be exercised ere new organs be admitted into our category; but still the phrenologist, of all others (in accordance with his motto, "*Res, non verba quæso*," and whose aim it should be to be an honest votary of truth, an observer of facts, and not the framer of a system in accordance with preconceived views), should be the last to shun or evade tangible evidence, from a morbid fear of consequences. The difficulty, however, may be in some measure avoided, by predicating only of groups, rather than of the separate and small individual organs, into which it seems probable that our present ones must be divided.

I would close these remarks with one or two observations in reference to "The Zoist." On seeing the announcement of that publication, and the high auspices under which it made its appearance, and particularly on reading its own confession in its first article (No 1, p. 17), that "the geography of cerebral physiology, except a few additions, was accomplished by Gall, but the exploration of the several cerebral divisions, that which we would designate cerebral analysis, must be carried out by ourselves," I was delighted with the expectation that the conductors of that journal would soon favour us (in addition to the deeply interesting cases illustrating the curative effects of Mesmerism which have appeared in its pages) with their views and experiments on the aforesaid subject of "the exploration of the several cerebral divisions." Though, however, the four chief contributors to the Zoist, Drs Elliotson and Engledue, with Messrs Prideaux and Atkinson, are well known to be highly talented and enthusiastic "cerebral physiologists" and mesmerists, still we at present hear of none of their views or experiments in this deeply interesting subject, saye those of Mr Atkinson on the cerebellum; but on the contrary, it has assumed a strangely querulous tone (a

tone singularly at variance with belief in its own favourite doctrine of the *necessity* of men's conduct and actions) against its fellow-investigators of the same great branches of science. We find it, for instance, at one time manifesting displeasure towards Mr George Combe, on account of the silence which he has hitherto observed in reference to the topics which have latterly so much agitated the phrenological world ; at another reproaching Mr Spencer Hall (who, in avoiding Scylla, has got into Charybdis), for the opposite offence of venturing to proclaim what he imagines he has discovered ; and then declaiming against this journal, for—perhaps the Zoist can say what ? as no specific or recognisable charge is to be gathered from its pages. Now, surely, it would be more consistent with propriety, if the Zoist would condescend to inform us of its own views and discoveries (if any) in this branch of science, before assuming the office of public censor, blaming some for its *own sin* of silence, and others for manfully declaring what they have observed. Let us hope, however, that these gentlemen are repeating experiments in private, and carefully maturing their views ; and that they will, ere long, in that candid and independent spirit which pervades most of their articles, inform us of the conclusions to which they have been led.

WOLVERHAMPTON, 17th Nov. 1843.

III. *On the Application of Phrenology to History and Politics.*

By DR GUSTAF KOMBST.

Phrenology has now arrived at a stage of development, where the results of thousands of observations should be generalized, and made the basis of new operations. In this respect, the progress of Phrenology has not kept pace with that made within the last 40 years by another inductive science,—Geology. Both started with a comparatively small number of well-ascertained facts ; but, whilst the one has run a wonderful race of development, accumulating facts and forming theories, which again led to the discovery of new facts, the other has, to a great extent, been satisfied with collecting details. Let it not be said, that it is more easy to go about and collect geological specimens ; heads, not only individual but national, are even more frequently to be met with than minerals, more especially where, as in flat countries, little or no aid is given by surrounding objects in the study of geology. Do not men continually travel about in their own and other countries ? Where is a spot on the earth that has not been visited, of late years, by

enterprising Britons? And yet what advantage has Phrenology derived from this extent of British dominion or enterprise?

As long as Phrenology is confined to ascertaining the faculties of individual man, it certainly will produce the most salutary consequences as a physiology of the brain or an organology of the human mind, as far as regards a correct knowledge of any nation, and the mental progress of man, which may result from such knowledge. But the views which it will open up to us, when applied not only to *individual*, but *national*, or *organization*, cannot fail to be at once grand and surprising. Nor will the consequences and practical results be of less importance. Phrenology has already shewn that there exist the most different *individual* organizations. The consequences and conclusions to be drawn from this fact have engaged the attention of the most able and indefatigable phrenologists, and have resulted in much that it is most practical with respect to education and general intercourse in society. These conclusions have also been made to bear very distinctly upon the social and political state of individual countries.

But it remains to be shewn, that *the cerebral organization of nations* is as different as that of individuals. Indeed, an excellent beginning in this way has been made by Mr Combe and Dr Morton; by the former, in his chapter "On the coincidence between the natural talents and dispositions of nations, and the development of their brains" (*System of Phrenology*, ii. 327. 5th edit.), and by the latter in his *Crania Americana*.* Both, however, at the present stage of Phrenology could only point the direction to be pursued, by making observations on the formation of skulls of different nations. What remains to be done is, to demonstrate that this difference of natural cerebral organization among nations can be traced back as far as we have any historical knowledge of man; what influence it has exercised in the progress and fate of these nations; how it came to be modified either by crossing of races, or by moral influences, or, finally, by local circumstances. Thus applied, Phrenology would become the best key to a philosophy of the history of the human race,—or, if you like, it would be that philosophy itself. Hitherto, we have had, indeed, the fine phrase, History is the instructor of mankind. But, pray, how are mere facts, results, and effects, without a knowledge of causes and agencies, to enlighten us on any one point connected with the most important interests of our own country or our own race? And in this state it is, that we still find history. Nothing but names, dates, and facts, more or less dryly put together, arranged according to some arbitrary cur-

* See also a paper by Dr G. M. Paterson, "On the Phrenology of Hindostan," in the Transactions of the Phrenological Society,

rent philosophical system. What was the organization of individual great men and of nations, we hear nothing of, except perhaps in the form of some peculiar virtue or failing, which enables us to conclude back upon organization. But to make up for the want of knowledge in historians of former ages, we are by no means without materials. Just as Niebuhr has succeeded in throwing greater light upon the ancient history of the Romans, and of Italy generally, than we can gain from any one of the ancient Roman historians; so may a skilful phrenologist of the present day accomplish the task of reconstructing or reproducing from literature, monuments of every kind, sculpture, paintings, medals, nay, casual descriptions, and sometimes from an examination of the present inhabitants of the same country, a pretty correct phrenological character of nations which lived long before us. But by far more easy will be the task with nations which, although their organization in some parts of a country may have undergone some changes, do still essentially represent the original national character. But, for what purpose? it may be asked. Do we learn any thing new by such investigations? Do we not, perhaps, collect only materials for proving that things just have happened as they ought to have happened? By no means. We will find by such inquiries, among other things, also the causes of very surprising facts, the explanation of which has hitherto puzzled our brains in vain. To mention only two: the difference of religious creeds even among Christians, and the circumstance that Protestantism hitherto has been confined to the Teutonic tribes, will find a very simple, and, at the same time, satisfactory solution in consequence. Farther, a conviction will be forced upon us, *that man can be educated or developed only to the extent of his natural organization*. The consequences, both practical and theoretical, which flow from this proposition, need not be farther dwelt upon at present, but will be striking enough to every one. Now, if history, in consequence of a proper application of Phrenology being made to historical studies, become something intelligible, and comprehensive, a well-connected series of causes and effects, in short, something worthy to be called a science, how eminently useful will its lessons be to ourselves and future generations! Again; if we have ascertained that there is as great a natural difference of organization between nations as between individuals, it follows that, as much as these nations differ in appearance and perhaps language, so much will they differ in the result of their respective national development or mental labour. It will follow, quite simply, that institutions, manners, in short, every thing which distinguishes one nation from another, is *the natural growth of its organization*; nothing ex-

traneous, nothing that has been forced upon it in the course of time by the mere action of external circumstances. However simple this conclusion may appear, yet it is far from being generally recognised by so-called philosophers as an incontrovertible proposition. On the contrary, almost all philosophical systems of the last century, the influence of which reaches down to our very days, are built on assumptions, the conclusions from which tend quite to the contrary. *There can then be no form of government, no external mode of religious worship, which is equally applicable to all nations, or even to one nation during all stages of its development.* No system of education, however perfect with an individual nation, in consequence of its being quite in accordance with that particular nation's natural organization, can consequently, with the same prospect of success, or even with reasonableness, be employed among the ancient Greeks and Romans and the modern nations, or among Englishmen and the South Sea Islanders. And yet, however simple this is, it is but too frequently overlooked, and immense sums are thrown away abroad, which might be more profitably employed nearer home.

But does it not follow from all this, that Nature seems to act upon an aristocratic principle of inequality? We do not know. To us it seems, that this variety of organizations, individual and national, by whatever names we may choose to designate it, is a providential arrangement for the purpose of ultimately bringing about a higher development of the human race, and making it consequently more capable of that destiny which is to begin after the fulfilment of our mission here on earth.

This is not the place for entering into details as to a science of politics, as based upon the science of man. Suffice it to say, for the present moment, that it was such views as those alluded to above, which induced the author of these lines to construct and publish an *Ethnographic Map of Europe*.* Ethnology has of late begun to attract public attention, as it at last has been felt to be a serious reproach, that we are far better acquainted with the natural history, organization, and habits of many animals, than with those of men. To promote the study of man, two Ethnological societies, the one at Paris, the other at London, have of late been established; but unless the members of these societies are enlightened enough to make Phrenology the principal guide in their investigations as to the intellectual and moral peculiarities of the different races of men,

* An *Ethnographic Map of Europe*, or the different nations of Europe traced according to race, language, religion, and form of government, &c.; by Dr Gustaf Kombst. Edinburgh: J. Johnstone and W. & A. K. Johnston. 2d edition, 1842. To which are added four sheets of explanatory letter-press.

the results of their inquiries will by no means be adequate to the present state of science in general, nor applicable to purposes of the highest practical utility. As Physiology, in general, must be one of the principal, if not the principal, auxiliary of Ethnology, so must the physiology of the brain, as the highest concentration of the organs and powers of man, be especially attended to in enquiring into the nature of different nations or races.

The only work as yet extant, in which proper use has been made of physiological researches for practical purposes of society, and with a recommendation of which to our readers we conclude these observations, is—"La Science politique fondée sur la Science de l'Homme; ou Etude des Races humaines, &c.; par V. Courtet, de l'Isle. Paris: Arthus Bertrand, 1838." We would direct the attention of phrenologists especially to p. xii. of the preface.

IV. *Observations on the Phenomena of Phreno-Mesmerism.* By Mr JAMES BRAID, Surgeon, Manchester. (From the Medical Times of Nov. 11, 1843.)

TO THE EDITOR OF THE MEDICAL TIMES.

SIR,—In the preface of my work on "Hypnotism, or Nervous Sleep," lately published, I promised to institute a farther series of experiments on the phenomena of Phreno-Mesmerism, and to publish the results. Judging from the rapid sale of my book (nearly eight hundred copies having been disposed of in a few months) that the subject of Hypnotism and Mesmerism is now commanding general attention, both from the public and the profession, I feel anxious to redeem the pledge referred to as soon as possible, and know no better mode of doing so than by publishing the results in your liberal and widely-diffused journal. Your inserting my paper at your earliest convenience will oblige, Sir, your most obedient Servant,

JAMES BRAID, M.R.C.S.E., &c.

3 St Peter's Square, Manchester, 4th Nov. 1843.

The power we acquire during mesmeric, hypnotic, or nervous sleep, of exciting the passions, emotions, and mental manifestations, through impressions made on different parts of the body, has produced much speculation as to the cause from whence it springs: 1st, Some have attributed it to the *will* of

the operator, exercising a direct influence on the nervous system of the patient, and thus affecting the bodies and minds of both similarly and simultaneously, or singly, according to the volition of the operator; 2*d*, others, to a magnetic medium transmitted from the operator, and stimulating the organ, or portion of the brain, directly subjacent, or from a distance, through what they call the poles of the particular cerebral organs; 3*d*, others, to previous knowledge of Phrenology, suggesting the idea to the mind when any particular organ was touched, or to a system of training whereby any mental idea might be excited in the mind of the patient, through arbitrary association with *any* part of the body; 4*th*, In the sixth chapter of my work, entitled, "Neurypnology, or the Rationale of Nervous Sleep considered in relation with Animal Magnetism," lately published, I endeavoured to reduce it to the laws of sympathy and association, connected with automatic muscular action (that is, by titillating certain combinations of nerves, corresponding muscles were called into action), and to shew that this muscular action renovated the past feelings with which it was ordinarily associated during the waking condition, in the active manifestation of the various emotions and propensities of the mind.

Some of the highest authorities (Dr Elliotson included) both as to Phrenology and Mesmerism, admit, that the same manifestations result from contact, or pointing over the previously excited parts of their patients, whether the operator knows or is ignorant of the part acted on; whether he wills or does not will any particular manifestation; whether he is a sceptic, and may be supposed to *will a contrary* result, or is a person entirely ignorant of Phrenology. Moreover, in some of my experiments, recorded at pages 141-2-3 of the above work, I proved, that by asking a patient to point to a particular organ, he would generally be wrong in respect to the organ named; but that the points pressed on gave their ordinary manifestations, even whilst the mind of the patient was directed to a different emotion or propensity. I therefore consider these facts are quite sufficient to refute the *first* theory.

The facts also resulting from patients manipulating their own heads, as just stated, I consider sufficient proof that the excitation did not arise from any influence, either mental or physical, passing from those present to the patient, as their *own* contact produced the results. Moreover, the manifestations in most instances were entirely different from the ideas existing in the mind of the person who requested the patient to touch such and such organs or points of his body; and the like results are found to arise from any similar mechanical

contact, in whatever manner it is brought into apposition with the patient, or from other impressions, such as electricity, galvanism, heat or cold, pulling a hair, &c. And, again, by allowing patients to pass into the third stage of sensation (which I shall immediately explain) before manipulating, it will be found that the manifestations are inverted, those regions of the head corresponding to the animal propensities in the second stage, exciting the moral sentiments in the third stage, and *vice versa*; and the same with the extremities. Or a still more interesting experiment may be performed thus:—Allow the patient to pass into the *third* stage, then reduce one side to the *second* stage before manipulation, and it will be found that the *opposite* manifestations will be educed from the relative points of the two sides of the head, trunk, and extremities. I consider these facts are quite at variance with the *second* theory.

In respect to the *third*, that the phenomena *might* be excited by previous knowledge of Phrenology, or by a system of training, so as to establish artificial and arbitrary associations, I never could entertain a doubt, knowing as I do the extreme docility of patients, and the acuteness of the senses and mental functions at a certain state of hypnotism. I directed especial attention to these points so long ago as December 1841. However, such a system I consider arbitrary and artificial, in contradistinction to the fourth, which I call the *natural* mode. I call that the *natural* mode, because it requires no training, but arises from the anatomical relations of the physical frame. In most patients the phenomena will come out more promptly, or more prominently, after having been previously excited, as all functions may become more facile from habit; but still the phenomena referred to *may* be excited at *first* trial, and *without* training, verbal prompting, or previous knowledge, to direct as to what is expected, *provided the manipulations are instituted at the proper stage*.

At page 146 of my work on “Neurypnology,” after giving particular directions for eliciting the manifestations, I stated my views thus: “Whispering, or talking, should be carefully avoided by all present, so as to leave Nature to manifest herself in her own way, influenced only by the stimulus conveyed through the nerves of touch exciting to automatic muscular action. We all know that during common sleep a person unconsciously changes from an uncomfortable position to one which is agreeable. This is a sort of instinctive action, and, as already explained, I think it highly probable, that by thus calling into action muscles which are naturally so exerted in manifesting any given emotion or propensity, they may, by reflection, thereby rouse that portion of the brain, the activity

of which usually excites the motion. In this case, there would be an inversion of the ordinary sequence, what is naturally the consequence becoming the cause of cerebral and mental excitation.* The following hypothesis will illustrate my meaning. It is easy to imagine that putting a pen or pencil in the hand might excite the idea of writing or drawing; or that stimulating the gastrocnemius, which raises us on our toes, might naturally enough suggest to the mind the idea of dancing, without any other suggestion to that effect than what arises from the attitude and activity of the muscles, naturally and necessarily brought into play whilst exercising such functions. However, I would very much doubt the probability of stimulation of the muscles of the leg exciting the idea of writing, or that putting a pen or pencil in the hand would excite the idea of dancing, without previous concert and arrangement to that effect. It is upon the same principle, as I imagine, that during the dreamy state of hypnotism, by stimulating the sterno-mastoid muscle, which causes an inclination of the head, the idea of friendship and shaking of hands is excited in the mind; and when the trapezius is excited at the same time, the greater lateral inclination of the head manifests still greater attachment, or "adhesiveness." Pressure on the vertex, by calling into action all the muscles requisite to sustain the body in the erect position, excites the idea of "unyielding firmness," &c. &c.

In following out this idea, I immediately found that my conjecture was correct, and that the same phenomena might be excited through the muscles of the trunk and extremities, as through those of the head and face. Thus, in patients who had never seen experiments of the kind, and who had no knowledge of anatomy and physiology, I succeeded at once in eliciting any manifestation I chose, by titillating the integuments so as to call into action the combination of muscles required. Thus, the pectoral and anterior portion of the deltoid, by elevating the arm and bringing it forwards, excites the idea of friendship, and the subject will lean against and clasp any person or thing near him. The central and posterior portions of the deltoid, by elevating and drawing back the arms, as if preparing to give a blow, excite the idea of combativeness. With many, clenching the fists will have the same effect, especially if the arms are correspondingly elevated. Titillating a little below the axilla, by stimulating the pectoralis and latissimus dorsi to contract, draws the arm to the side, and thus excites cautiousness, fear, or terror. The

* This principle, and its importance, have already been pointed out by Mr Combe. See our 15th volume, p. 207.—Ed. P. J.

lower point of the sternum produces stooping, sighing, compassion, and benevolence; the recti muscles of the back excite the erect position with the feeling of firmness and self-esteem; the flexors of the fore-arm, the desire to grasp and appropriate to self all which comes in his way; the extensors the reverse, or conscientiousness and restoration; the larynx, the desire to sing or talk; and so on in respect to the functions of other organs, or combinations of muscular actions.

I shall now give such instructions as may enable any expert experimentalist, well acquainted with anatomy, and who wishes to test this fairly, to prove the correctness of my views. In order to insure this success, however, it is of the utmost importance to pay particular attention to the *different stages of sensation during hypnotism*, which I am now about to explain.

There are three stages of sensation in the hypnotic condition (the term I prefer, to designate the peculiar sleep referred to), the first characterized by increased sensibility, docility, and pliancy, so that any part readily yields or moves in the direction of the force applied, and will remain in the position in which it is placed. This is the condition called pliant catalepsy. The second stage is that where there is increased sensibility and slight rigidity, with a tendency to contraction in the muscles immediately subjacent to the points touched or titillated. The third stage is that where there is rigidity of all the muscles, or rigid catalepsy, with *diminished* tactual sensibility. In this case, the patient may be pricked or pinched with little or no feeling; but continued gentle pressure or friction will *reduce the rigidity* in the *subjacent muscles*, and the member will be gradually drawn in the opposite direction, in consequence of the continued undiminished action of their antagonists. The *second* condition is the proper stage for exciting the manifestations above referred to; and the operations, if skilfully conducted, are almost certain to be followed by the anticipated results, and will thus verify the correctness of what I have already advanced, and what was also referred to at pages 95, 96, 97, and elsewhere, of my treatise on Hypnotism.

The operation by which motion is excited during the *second* stage, may be called the *direct* mode; that during the *third*, the *indirect*, because, in the latter case, the motion is excited by *reducing the power of the antagonist* muscles, whereas, in the former, it results from the stimulus being applied directly to the particular muscles to be roused.

As the phenomena can be excited equally readily from the head and face, trunk and extremities, through automatic muscular action renovating past feelings, according to the ordinary laws of association, or from arbitrary associations, by contact

with any part of the body, it appears to me, that they neither prove nor disprove the doctrine of Phrenology, or the allocation of different functions to separate organs in the brain. However, the situation of the sympathetic groups in the head, which I shall immediately explain, if taken at the *second stage* of sensation, corresponds with the three principal locations and divisions into animal propensities, moral sentiments, and intellectual faculties.

The fact of the opposite manifestations resulting from manipulating the head in the *third stage*, to what we realize during the *second*, clearly proves, that the results do not arise from a stimulus conveyed *directly*, from the point of contact, to the *subjacent portions of the brain*; but, as the effects on the muscles are inverted, so ought the points manipulated to be changed to produce the intended results. Now, this is precisely what happens—the *same muscular action* being excited from *opposite* points, both in the head, trunk, and extremities, in the one stage and in the other. Still, however, the same mental feeling is excited along with this muscular action, *however the latter has been excited*; and this, I think, is strongly corroborative of my theory.

A familiar example of the influence of muscular expression or action reacting on the mind, may be realized by any sensitive person, *even during the waking condition*. Let him assume, and endeavour to maintain, any particular expression or attitude, and he will very soon experience that a corresponding condition of mind is thereby engendered. Now, such being the case during the *waking condition*, when the faculties of the mind are so much dissipated and diffused by impressions on the various senses, we can readily understand why the influence should be so much more energetic during Hypnotism, the peculiar features of which are high sensibility, with the whole energies of the mind concentrated on the particular emotion excited. It is no doubt, in a great measure, owing to the same cause, that our greatest actors and actresses have become so profoundly penetrated by touching scenes as to shed floods of tears during their impersonations of character—the just conception of the character first producing appropriate physical action, and this again reacting on the mind in the extraordinary manner which was manifested in a Siddons and O'Neil.

Whilst others, from experiments in this department, have been multiplying phrenological organs to an amazing extent, the result of my researches tends rather to classify and curtail them. Thus, in the second stage, I find that the lateral portions of the head correspond with the flexors of the upper extremities—the anterior portion exciting flexion and movement of the

fingers and hand, and the movement of hand and arm being increased in extent and energy by calling additional muscles of the shoulder and trunk into activity, as we proceed backwards. This portion, therefore, represents the animal propensities,—the prehensile or selfish principle. The whole of the central and coronal region (excepting the vertex) corresponds to the opposite class of muscles, and the opposite condition of the mind,—the relaxing, extensile, and distributive or benevolent tendency, respect and regard for others. In other words, the extensors represent the moral faculties, the flexors, the animal propensities and selfish principle ; and, in the head, during the second stage of sensation, the central and coronal region represents the former, and the lateral regions correspond to the latter. The intermediate space seems to rouse partially *both* classes of muscles, and gives a mixed or varying character to the emotions, according as the one or the other predominates. This is Gall's region for Wit, Ideality, Caution, and Love of Approbation. The forehead excites an appearance of attention, observation, and reflection ; but beyond this, and the different degrees of sensibility of different parts giving more or less promptness and energy to the various emotions and propensities, all appears to me to be inconclusive as far as illustrated by manipulating patients during the nervous sleep.

I shall now advert to one of the most remarkable circumstances connected with these investigations ; namely, the influence of contact in exciting memory. Thus, a patient may be unable to answer the most simple question, on a subject with which he is quite familiar ; but touch any part of his person, either with a finger or any inanimate substance, or cause him to place one of his own hands or fingers in contact with some other part of his own body, and immediately he will be able to reply correctly. There are many patients with whom this may be repeated any number of times with the like results. It appears to me to be merely mechanically arousing and fixing or concentrating the attention in *one* direction, instead of the mind wandering uncontrolled and incapable of fixing itself definitively on any subject whilst addressed only through the organ of hearing.

Analogous to this is another curious fact, that most patients, from having contact established with almost *any* part of the body, whilst the mind is actively engaged by *any* idea or emotion, may have it prolonged, almost indefinitely, by maintaining the contact with which it has been thus associated. We have familiar examples of the influence of contact or muscular action in fixing attention and aiding memory in the waking condition, furnished by the many deep thinkers who are in the

habit of pressing a finger or hand against different parts of the body, generally the forehead, or pinching or rubbing some part when engaged in deep study. Others, again, will seize hold of a button or thread, and, deprived of this, feel unqualified for the task most easy with such aid—as exemplified in Sir Walter Scott's victory over his rival schoolfellow, and the case of the lawyer, the thread of whose discourse was thus broken. It was also well exemplified by the blind man at Stirling, who could repeat any verse, or any chapter, of the Bible, whilst twirling a key on his thumb, but was quite at fault if deprived of his key.

Mr H. G. Atkinson has lately promulgated some novel views, under what he calls “the functions of the cerebellum,” and thus explained in No. 202 of the *MEDICAL TIMES*:—“That portion of the cerebellum nearest the ear, gives the disposition to muscular action; next to which, and about half way between the ear and the occiput, on the top of the cerebellum, *muscular sense*—a power conveying the sense of resistance, and the state of the muscles; beneath which is *muscular power*—giving force and strength; and in the centre are what are termed the physico-functional powers—a group of organs giving the sense of physical pain and pleasure, temperature, and having relation to the general condition of the body, and its secretions, Amativeness, &c. The part nearest the centre giving the sense of pain; the sense of temperature being nearer to the ear, and Amativeness beneath.” I have tried Mr Atkinson's experiments with my patients, but I account for the results differently. Thus, the first I consider is merely an extension of the prehensile and appropriate group of muscular actions referable to the lateral parts of the head, as already explained; the second, an extension of the intermediate region, where both extensors and flexors are partially excited, corresponding with Ideality, Cautiousness, Love of Approbation, &c. in the anterior region; the third, by stimulating the posterior recti muscles, which excite Firmness and Self-Esteem, of course gives the appearance of energy; and the fourth, corresponding with the softer and kindlier feelings, under the influence of the relaxing and distributive class of muscles, which represent the moral sentiments, will account for the last group. Such have been the conclusions to which I have come from personal observations on this point. Mr A. is evidently a gentleman of great intelligence, and one who has devoted much pains to the investigation of mesmeric phenomena; and his observations on this point, therefore, deserve the careful attention of others engaged in similar enquiries.

The investigations of the phenomena of Hypnotism and Mesmerism are not only curious, but most important, as daily ex-

perience amply proves to me, in the rapid relief and cure, by this mode of treatment, of diseases which had resisted all the ordinary and most approved methods. I shall defer some farther observations on other important points to a future opportunity, having already, I fear, encroached too much on your valuable columns.

V. Phrenological Observations in Germany and Italy. By
GEORGE COMBE.

TO THE EDITOR OF THE PHRENOLOGICAL JOURNAL.

ROME, 10th November 1843.

SIR,—Since I wrote to you from Rosawitz on 14th August, I have posted, in an open carriage, by easy journeys, through Bohemia, visiting Tœplitz, Prague, and Budweis; through part of Austria, viz. by Linz to Ischl and Salzburg; through the Tyrol from Reichenhall to the pass of the Stelvio, leading over the Rhetian Alps into Italy; through the great Alpine valley of the Valteline to Como; thence to Milan, Pavia, Genoa, Spezzia, Lucca, Pisa, Florence, and Perugia, to this city. I proceed to give you such phrenological gleanings as I have gathered by the way; premising that they cannot pretend to the full accuracy of scientific observations, but should be viewed as only the nearest approximations to them which circumstances allowed me to make.

The Bohemians are a Sclavonian race, quite distinct from the Germans. The most common temperament among them is a combination of the bilious, nervous, and sanguine; dark eyes and dark hair are prevalent. The brain, lungs, and abdomen are all smaller in the Bohemians than in the Germans. The brain is not so broad; and it is longer in proportion to its breadth. Alimentiveness, Acquisitiveness, Destructiveness, and Secretiveness, as well as Cautiousness, are less; while Philoprogenitiveness, Concentrativeness, Adhesiveness, Self-Esteem, and Firmness, are larger. This makes a great difference in the dispositions; and even a passing stranger observes that in Bohemia there are not half so many establishments, in proportion to the numbers of the people, for the enjoyments of eating, drinking, and smoking, as in the rest of Germany. In the Bohemians, the coronal region is not so broad, nor so much arched, as in the pure German head; but still it is not deficient in proportion to the region of the propensities. The anterior lobe, also, is not so broad, but the knowing and reflecting organs are both well developed. In short, the Bohemians resemble pretty closely the cross-breed between the

Celtic and Teutonic races, which prevails in some districts of England, and particularly in the lowlands of Scotland, but with rather more Self-Esteem in proportion to Love of Approbation than occurs in the Scots. One easily distinguishes differences in the manifestations between the Bohemians and the Germans. The Bohemians walk with an air of self-consciousness and self-sufficiency, which, when combined with moral and intellectual qualities, becomes dignified and graceful, and which is not common among the Germans. They do not smoke so generally, even among the lowest classes, and they do not seek so much pleasure in eating and drinking. The Bohemians are prone to drinking till they are drunk; but it is after the manner of the drinkers among the labouring population in Scotland—they drink ardent spirits to obtain a stimulus. The Germans drink a weak, highly hopped, well fermented beer, for the pleasure which it affords to the palate, and the opportunity of social intercourse. The German eating partakes of the same character. It is not gluttony; but an enjoyment extracted from partaking of a great variety, generally of simple dishes, prolonged over a considerable space of time. The musical instruments of the Bohemians appeared to me to be played less loudly and powerfully, and with more tenderness, than those of the Germans. The self-consciousness and self-esteem of the Bohemians render them less urgent and obstreperous as beggars; and I should say that altogether they are more reserved.

The Valteline may be described as a succession of valleys, extending from the bottom of the steep pass of the Stelvio, at the Baths of Bormio, for sixty or seventy miles, to the Lake of Como. The valleys are rarely more than two or three miles broad, often not above one, in some parts even less; and high mountains rise on each side. Either the physical influence of this situation, long intermarriage within narrow circles, neglect of mental cultivation, or the whole of these and perhaps other causes operating in combination, have produced a miserably developed population. Both men and women have small heads, of very unfavourable forms. I saw at Sondrio a religious procession of several hundreds of both sexes, moving very slowly, and all uncovered; and I do not recollect to have seen in any other country, except among the aboriginal Americans in the United States, so large a proportion of very inferior brains to the good, or rather to the average of other European countries, for I observed scarcely one that was really well developed. There was among them no common type of formation, except that, as a general rule, the moral and intellectual organs were lamentably deficient. In some, the organs of Philoprogeni-

tiveness and Adhesiveness seemed as if omitted, and the head rose up, almost in a straight line, from the cerebellum, and towered high in the region of Self-Esteem and Firmness. In others, the intellectual organs appeared extremely deficient ; while in others the coronal region ran up into a narrow eminence at Veneration, as if Benevolence, Conscientiousness, Ideality, and Firmness, had been entirely left out. The expressions of the countenances and the gaits corresponded with the heads. Such a congregation of ungainly, mean, unintellectual, and ill-formed human beings, I have not seen in any country. The valleys are in some districts marshy and unwholesome, which cause has probably operated much in producing these unhappy results ; to this we may add, that probably the best part of the population has long been in the practice of emigrating to more favourable districts of Italy. It is obvious, that the first effectual means of improving a people like this, must be such as are addressed to their physical condition ; draining the marshes, and introducing cleanliness and well-ventilated houses, in place of the now existing dirt and hovels. At present, a substratum of mind is wanting for moral and intellectual instruction to act upon. In this district, churches are so numerous, that apparently there is one for every 250 souls, or even more than this proportion. Nevertheless, as the natural laws have not been taught to the people, and not enforced on their observance as the ordinances of God, all these churches have failed to arrest this degradation of the organic frame, and the consequent paralysis of the moral and intellectual powers through the medium of which Christianity itself must operate on conduct in this world, if it operate at all. I asked an intelligent German, who had been for some time in service in the district, how he liked the people. His answer was, " Not at all : they live like swine, and cannot be relied on for any thing." The truth of the first part of this description was painfully demonstrated by their persons and dwellings, and that of the second was confirmed by my own experience, so far as it extended.

I cannot yet speak of any development of brain as properly Italian. The varieties of size and form are so great and extensive, that I cannot venture to describe a particular configuration as that of the Italian people. The appearance of the present inhabitants of Italy strongly confirms the records of history, that this country has been overrun by multitudes of invaders of different races. They have left so many traces of their existence, that it is difficult to distinguish a common type, or even a size, which may be described as an average of the Italian brain. I have seen in the churches, theatres, and

markets of Italy, hundreds after hundreds of small, ill-proportioned, inferior heads ; while I have seen also, but much more rarely, the large broad head, with fine anterior lobe, full coronal region, and dark bilious and nervous temperament, which I had been accustomed, before visiting the country, to regard as the proper Italian type. I now see that it forms a small proportion only of the aggregate ; and I begin to perceive in the heterogeneous combinations of the cerebral organs in this people, obstacles to their conglomerating into one nation, which have not been taken into consideration by the ordinary speculators on their destiny. I repeat, however, that my observations are still too limited to merit implicit reliance.

In Milan I had the pleasure of forming personally the acquaintance of Dr Pietro Molossi, known to the readers of your *Journal* through his writings on the science.* He is still in middle life and in good health, and is in the employment of the Austrian Government in his medical capacity at Milan. He is preparing for the press the second part of his work on Phrenology. He reads the *Edinburgh* and *Heidelberg Phrenological Journals*, is convinced of the foundation of animal magnetism in nature, has tried magnetism, but has never obtained manifestations of the cerebral organs during the magnetic sleep. He hopes to visit *Edinburgh* within a few years.

In Milan I became acquainted also with Count Neipperg, a warm and able friend of Phrenology, whose name is known to you through Dr Castle's "*Corso di Lezioni sulla Frenologia*," printed at Milan in 1841, and dedicated to Dr Molossi. Count Neipperg is still young, but he is an influential man. He is in the military employment of the Austrian Government in Milan ; his father is the second husband of Maria Louisa, Napoleon's widow, now Grand Duchess of Parma ; and his brother is married to a daughter of the King of *Württemberg*. I mention these particulars (according to the information given to me by a friend of the Count), because they indicate that Phrenology is no longer regarded with distrust by the Austrian Government. In point of fact, Dr Castle's lectures were delivered in the salon of Count Neipperg, and were attended by many of the most distinguished persons in Milan. Their subsequent publication and dedication to Dr Molossi, and the employment of this gentleman himself, after he had published on Phrenology, by the Government, all shew that in the *Lombardo-Venetian kingdom*, advocacy of this science forms no obstacle to the advancement of its disciples to situations of confidence and honour. Count Neipperg informed me that Dr Castle (who is an American, and holds a degree of M.D. from the

* See *Phrenological Journal*, vol. xiv. p. 237.

University of New York), during his residence in Milan, had examined the heads, and written descriptions of the natural characters, of a considerable number of individuals of both sexes, some of them of distinguished talents, and others in high rank ; and with extraordinary success. He read to me several of these written descriptions ; and in point of deep analysis and comprehensive unfolding of the most delicate and remote effects of the combinations of the different organs, they possess the highest merit. Dr Castle had left Milan, and was in Stuttgart at the time of my interview with Count Neipperg, so that I had not the pleasure of seeing him, nor did I see any of the individuals whom he had described. I had no means, therefore, of judging of the accuracy of his *observations* ; but I urged on the Count the advantage of publishing several of the manuscripts as examples of profound analysis, and close deduction ; and as he certified that the characters were equally true to nature (of which he could judge from intimate knowledge of the individuals), as they were ably and scientifically deduced from phrenological principles, I trust that this will be done, either in your pages or in those of the German Phrenological Journal.

The statuary and paintings of Italy present a field of study of the highest interest to the phrenologist, and my next letter will be devoted to this subject. At present I limit myself to remarking, that I have examined with attention the collection of ancient busts of the Roman emperors, and of other distinguished Romans, now preserved in the galleries of Florence and Rome, with a view to form an estimate of their value as records of the talents and dispositions of the men ; but have been grievously disappointed. Mr Charles Maclaren, in his "Notes on France and Italy," had previously remarked that, "of some of the great Greek and Roman sages and heroes, there are four or five editions here in marble, and I was mortified to find that the effect of this multiplicity of portraits was to unsettle my ideas of physiognomies which I was anxious to remember, and to shake my faith in the fidelity of likenesses taken by the ancient sculptors. There (in the Museum in the Capitol) or elsewhere in Rome, I have seen heads of Cicero which had very little resemblance to each other. It is the same with certain busts, bearing the names of Julius Cæsar, Brutus, Plato, &c. There is much more uniformity in the case of some of the emperors, such as Nero and Caligula, whose faces nobody cares to know." My own observations coincide pretty closely with those of Mr Maclaren ; only it appears to me, that, in most of the busts, the features of the face, and such portions of the forehead as were not covered by the hair, had been modelled from nature ; but few of the busts are of the

size of life, the greater number being colossal. The other parts of the head seem to have been formed without due attention to individual characteristics. They cannot be said to have been all modelled from the same lay-figure; for there *are* great differences in the forms of the heads, but these differences are not natural, and are not characteristic of any individual qualities. The heads seem to have been modelled at hap-hazard, according to the artist's fancy, with this exception, that a common type may be recognised in many of them. They are almost all very broad above the ears, and the coronal region is shallow and defective. This is so prevalent, that it must have been the general form, and it corresponds with the general characters of the men; but that it is not copied faithfully from each individual is obvious, because the same breadth in the lower, and occasionally the same deficiency in the coronal region, appear in the best as in the worst of the Roman emperors. Among the exceptions to this general type are two busts in the Royal Gallery at Florence, said to be of Julius Cæsar. One is in bronze, of which the Phrenological Society in Edinburgh has a cast, presented by the late Lord Douglas Hallyburton; the other is in marble. Both seem to have been carefully modelled, but unfortunately the two differ so widely in the forms of the head and of the features, that I cannot believe them to be likenesses of the same man. There are *three* busts of Trajan in the same gallery, each differing so much from the others in the form of the *head*, although the features bear some resemblance, that all confidence in them as historical records is destroyed. *All* the busts of Nero represent *him* with an enormous breadth over the ears, and deficient forehead, but they differ in the other regions of the head. I ascribe these defects to the Roman sculptors not having advanced far enough to discover the importance of following Nature even in her minutest differences of form. Canova was equally blind to this rule. His heads are not faithful portraits beyond the face and forehead, and, in consequence of this defect, have little historical value. Our countryman Lawrence Macdonald estimates highly the value of Phrenology in this particular, and follows nature in his busts with a just fidelity. The Greek sculptors also were far more attentive to individual character than the Roman, as I shall take occasion to notice in my next letter. In the Gallery at Florence there is a collection of busts of the most distinguished men of the Medici family; but here also, between wigs, and caps, and bushy locks, colossal dimensions, and careless modelling, almost all historical evidence of dispositions is destroyed. I am, &c.

GEORGE COMBE.

II. CASES AND FACTS.**I. Three Cases of Homicidal Insanity.**

1. *Case communicated by Dr OTTO, Professor of Forensic Medicine in the University of Copenhagen.*—On the 21st of March 1843, K. J., a country woman in Zealand, 42 years old, who of late had manifested some confusion of mind, called her husband in to dinner. On entering, he immediately perceived blood on her fingers, and asked her whence it came. She answered quietly, that she did not know; but on his repeating the question, she pointed to the cradle in which their youngest child (a girl one year old) used to sleep, and said—“You may look there.” The child was then found dead from having been cut in the throat with a razor, which the mother had found in a drawer. The husband and the other children complaining and reproaching her, she behaved very oddly, saying that she did not know what was the matter; but, on the servant maid charging her with the crime, she replied, “Yes! and what then? I have cut the throat of Dorothea!” The husband now questioning her what had actuated her to take the razor and kill the child, she answered, “She did not know; it occurred to her she was to do it.” In the prison to which she was brought, she tried the next day to hang herself with a handkerchief, but was taken down in time, and restored to consciousness. Thenceforward she was alternately quiet and confused, until the middle of May, when she recovered her reason, but without being able to know or remember what she had done, when not informed of it.

She had, when 12 years old, by a fall down a garret stair, hurt her head and chest considerably; and, although cured, was three months after attacked by cramps and mental derangement, which, however, likewise yielded to medical treatment. She subsequently enjoyed several years unbroken health, manifesting neither perturbation of mind nor any other disease; and gave birth to four children, to whom she always was a careful and loving mother. In June 1842, a fire consumed their house, and deprived them of all their furniture. This depressed her spirits very much; but, although melancholy, she was not at all deranged in her intellect, and attended carefully to her domestic duties. From January 1843 she had always sleepless nights, talked confusedly, and was uncommonly passionate towards her husband and children, but *only in the forenoon*, until 1 o'clock; the rest of the day she was quite reasonable and gentle. In such a fit as the above-mentioned,

she twice tried to kill the youngest child—the first time with a knife, and the next with a cord round her neck ; but was both times prevented from doing it. Six weeks before she succeeded in the murder, her state was altered in such a manner, that she slept well at night, but began in the morning to talk incoherently, and continued so the whole day, but in other respects was more quiet. The last ten days, however, she had been much better. Her physician had given her some medicine, and declared her so well that she did not require his farther attendance. The day on which she committed the murder she rose at 7 o'clock, but as she appeared a little confused in mind, she was prevailed upon by her husband again to go to bed. The child had likewise as early been taken up from the cradle, but, as it became sleepy, the maid would, as usual, lay it into the bed with the mother ; who, however, remarked that it was better to put the child into the cradle. This was done, and at 10 o'clock the mother rose, apparently not suffering from any mental derangement, and occupied herself with mending the clothes of the children. At 12 o'clock she took a razor and cut the throat of the child. It is clear that, in this criminal case, there could be no question about imputability ; and the Danish College of Health, before which it was laid, declared, of course, the murder to be an act of insanity. But can any other existing philosophy of mind explain it but the phrenological ? And will every other murder in consequence of a *morbidly* excited Destructiveness, be seen in its true light by any other but by a phrenologist ?

2. Case reported by Dr Amariah Brigham, Medical Superintendent of the Retreat for the Insane at Hartford, Connecticut.

—A case of insanity, once under my care, was preceded by a homicidal propensity, and its bearing is so direct upon the Medical Jurisprudence of Insanity, that I will briefly relate it. It was that of a lady, the mother of three children, one of whom she suddenly killed by repeated wounds with a hatchet. She had not been considered insane previously, though she had for some time been unwell, and low spirited. Soon after the act, she endeavoured to kill herself, and was brought to the Retreat a decided and wretched maniac. For several weeks, she remained without much change, rather stupid, as if she had no recollection of the past. After this, her bodily health began to improve, when suddenly the memory of what she had done seemed to return, and the agony she was then in for a few hours, until her feelings were overcome by opium, was indescribable, and most painful to witness. She, however, recovered, after various changes and symptoms, among the most

striking of which was violent palpitation of the heart. This lady has now been well for nearly one year, and had the care of her family as usual. She has visited us since her recovery, and has often assured me that she could recollect no motive whatever that induced her to commit the act, and does not believe that she thought of it till she saw the hatchet.

This case I consider important in reference to the Medical Jurisprudence of Insanity. It seems to have been an instance of that singular form of mental disease, mentioned by Esquirol and others, which suddenly impels a person who has previously exhibited no disorder of the intellectual or moral powers, to take the life of another without motive—without passion or interest, but apparently from a sudden and irresistible impulse. Had this amiable lady and affectionate mother killed a neighbour or domestic, I fear there would have been difficulty of convincing a jury that the act was the consequence of insanity.

The administrators of justice often have great difficulty in distinguishing crimes from the result of insane impulse. Murder and other crimes are occasionally committed, apparently without motive, accompanied by circumstances that induce many of the most experienced medical and legal jurists to believe them the result of insane impulse or delusion.

Such instances might well be adduced by those who are in favour of abolishing all capital punishment. I know it is a common, but frequently, I suspect, a careless remark, that the plea of insanity is too often successfully adduced as an excuse for crime. So far as I have any knowledge, this is not the case. I do not know of a single instance, where the insanity of an individual has been certified to by those well informed and well qualified, by experience with the insane, to judge on such a subject, that time and public opinion has decided to be incorrect,—while I know many instances where the plea has been disregarded, which time has shewn ought not to have been. I have seen several kept in prisons for crime, where their appearance and conduct convinced all that they were insane, and insane when brought to the prison. One, happily now in the Lunatic Hospital in Worcester, Mass., was kept several years in the prison of our State, for an act committed when he was as insane as he now is, and of his insanity at the present time there is no question. It might be well for those who, in halls of legislation, or in courts of justice, confidently assert that insanity is frequently feigned, so as to deceive those well informed on the subject, to adduce instances of the fact. In a case where the life of an individual is concerned, it is especially important that remarks of this kind should be supported by facts.—*Eighteenth Report on Hartford Retreat, 1842.*

3. *Case of Mattos Lobo, a Portuguese.*—Mattos Lobo, twenty-six years of age, a member of a respectable family at Amieira in Portugal, had distinguished himself at college, and was destined for the church; but *all on a sudden* he changed his mind, and went to Lisbon to attend the polytechnic school there. Among other houses which he visited, was that of his aunt, Donna da Costa, with whom lived a son, daughter, and female servant. As Lobo lived in a distant quarter of the city, he visited his family but seldom; but on the 23d July last, he called and requested to be allowed to take his meals with his aunt until the 26th inst., when he proposed to leave Lisbon for the vacation—a request which was accorded. On the 25th, after having spent a part of the day in music with his cousin Julia, he went away saying that he should return on the next day and take leave. But on the same night about eleven o'clock, a neighbour, who had noticed the outer door of Donna da Costa's house left open, mentioned the fact to the police, and an officer with several men, on arriving at the house, found the dead bodies of Madame da Costa, her son, and her servant, all three recently assassinated. Julia was still alive, but she had received several wounds in the neck and chest with a dagger, the blade of which was found remaining in the chest; and she lived only long enough to declare that the murderer had been her cousin. Lobo was arrested at his own lodgings. In the lining of a hat were found three cheques on the bank of Oporto, drawn in favour of Madame da Costa, though all the plate and other valuables belonging to that lady had been left untouched. Having been found guilty by a jury, Lobo afterwards confessed in full. After protesting that he had not been urged to the crime by the hope of plunder, he declared that he had committed the murders without any other aid, that the thing was inexplicable to himself, but that he had felt himself driven involuntarily to the act by a momentary impulse, and by a paroxysm of a monomania which had for many years been growing on him.

A man in the French army, who had served with distinction in the African war, and been promoted to be a sergeant, but was afterwards degraded to the ranks, was threatened with punishment by his sergeant for some misdemeanour, and the same punishment was afterwards inflicted by order of a superior officer, though for another cause. At night he was missing at roll-call, and did not enter his barrack till a late hour, when he undressed, and lay down without attracting notice. Suddenly some of his comrades, who were playing at loto, were surprised by his approaching them with a musket in his hand, demanding, "Who is ready to die?" The ser-

geant entered the barrack-room shortly afterwards, on seeing whom the private levelled his gun, and fired at him, saying that such was in return for what he had said in the morning. The sergeant fell and died; and the assassin approaching him, and ascertaining that life was extinct, ironically apostrophized the body. He, however, opposed no resistance to being arrested, and even took off a decoration he wore, saying that he had no longer a right to wear it; but he declared, that "if the time were to come over again, he should act in the same way."

These two cases present a wide contrast. None of the hardihood exhibited by the actor in the latter was manifested by that in the former. The Portuguese had no motives for revenge,—no obvious premeditation of his acts; and he shewed no pleasure afterwards at what he had done, to which, indeed, he spoke of himself as having been impelled. The circumstances in the latter case were altogether different. The former may have been a case of homicidal monomania; caprice and sudden determinations, such as manifested by the assassin, are justly enough considered symptoms of imperfect or unsound mind.* The latter case was clearly one of murder by premeditation. The law, however, regarded the acts in the same light; both men were executed.†

* "We are told that the cranium and brain of the Portuguese was examined by some surgeons skilled in Practical Phrenology, and that the convolution in which the organ of Destructiveness is situated was found very largely developed."—*Lancet*, 10th June 1843, p. 377; from which we have transferred these two cases to our pages. The writer in the *Lancet* does not say whether any report of them had previously been published.

† The following observations are extracted from the Tenth Annual Report of the Trustees of the State Lunatic Asylum at Worcester, Massachusetts, December 1842. They are from the pen of Dr Samuel B. Woodward, the experienced and enlightened medical superintendent of that institution.

"In general, homicidal insanity is impulsive; in a few cases only, so far as I have known, has there been any considerable premeditation of the act, even in cases of supposed command from powers which the insane individual felt bound to obey. The command, and the execution of it, are both impulsive, and generally follow one another in such quick succession, that the opposing influences are supposed to interfere and prevent the deed."

"Seven of the fifteen cases of homicide that have been in the hospital, were not considered insane before they committed the act. They were at work at their several employments, were not observed by those associated with them to have any evidence of alienation of mind, knew as well as others right from wrong, how to manage their affairs, and conduct their business well. The first overt act of insanity was the homicidal act, and that was impulsive. Yet in all these cases, the symptoms of insanity have been clear and decisive since the patients came to the hospital."

"In this connexion it may not be improper to say, that of all the cases that have come to my knowledge—and I have examined the subject with interest for many years—I have known but a single instance in which an individual, arraigned for murder, and found not guilty by reason of insanity, has not afterwards shewn unequivocal symptoms of insanity in the jails or hospitals where he has been confined; and I regret to say, that quite a number who have been executed have shewn

II. *On the Cerebral Development of Conveyancing Lawyers.* By MR E. J. HYTCHE.

In the "Metropolitan Magazine" is a sketch of Sir Edward Sugden, the Lord Chancellor of Ireland. The writer says that "his head is a small one; and marvellous it is that it should contain so much. If it were submitted to the cranioscopists, they would inevitably be at fault." A commentary on this remark is contained in a subsequent passage; for, after referring to those jurists who have evinced a knowledge of principles, as well as of facts, he thus proceeds: "Sir Edward is not a lawyer of this high order; he limits himself to known learning; and there is scarcely a decision from the first attempts at reporting down to the last case, of which he does not remember the law." No clearer analysis of his mental characteristics could be made; and none more clearly illustrates the position that small-headedness cannot consist with large-thoughtedness. As regards the development of Sugden, he has a small head; the temperament is chiefly nervous, and the organ of Eventuality predominates. We should, then, expect great mental vivacity; and for this he is conspicuous. We should also predicate his brain to be a store-house of facts, with the power of ready application; and the deduction and the fact accord. We should, in a word, expect to find a man well versed in details, and an able practitioner; and such is Sir Edward Sugden. But how different the tale told by the portraits of Coke and Bacon, and other great jurists, their large heads and massy frontal lobes giving legible expression to the greatness of the mind within!

It may be mentioned that conveyancers, in which department of law Sugden is pre-eminent, possess large organs of Eventuality and Concentrativeness. Their chief value depends on a thorough knowledge of precedents, and the power of the instant remembrance of those cases which are applicable to the questions submitted for their consideration. I have known conveyancers reply to such questions by citing cases which happened 200 years ago as readily as if they had

as clear evidences of insanity as any of these. In a large proportion of the cases, the insane man is desirous to keep the evidence of his mental alienation out of sight rather than to present it, while he who feigns insanity, generally presents it in caricature.

"I am aware that the plea of insanity is often made in criminal trials, and may be made so often as to excite public prejudice; but, till the subject is better understood, it cannot be too frequently or too thoroughly investigated. The old boundaries *have been or will be* broken up, and new principles will govern courts and juries in deciding upon the lives of their fellow-men."

occurred yesterday. The power of concentration is also requisite to *continuously* amass such facts. So when a title is investigated, it is necessary that the attention should be abstracted and fixed until the facts are mastered. I have thus known conveyancers to concentrate their attention until they had acquired the facts contained in papers which occupied several days to read. It therefore accords with their peculiarities to find English conveyancers possessing very large organs of Eventuality and Concentrativeness; and I have no hesitation in affirming, that for a man to succeed in that profession who has these organs feebly developed, is an impossibility.

OCTOBER 1843.

III. *Facts relative to Mesmerism.* By MR CHARLES MEYMOTT, Surgeon, London.*

Seeing that mesmeric symptoms have been very much exaggerated in the accounts given of them by various writers, and that, consequently, but few of them can be relied on for strict scientific accuracy, I shall confine my attention principally to those symptoms which have come under my own inspection; and as a great number of these were observed in the well-known cases of the O'Keys, a short account of them may not be without interest; at the same time, the truth of what I say can be attested by the many who witnessed them at the time I did. It may, perhaps, scarcely be necessary to mention, that the O'Keys were two sisters, and patients in the North London Hospital four or five years ago; and that they were under the care of Dr Elliotson, who thought proper to mesmerise them. The symptoms, I believe, were soon produced in both of them; the methods of producing them were those usually adopted for a similar purpose, and the symptoms pretty much the same as mesmeric patients usually exhibit, and for the most part were manifested in the manner anticipated by the operator, but not always, for in some instances there was complete failure in the expected results, which has never been satisfactorily explained. The following notes were taken by myself on the spot, and at the time of occurrence, viz. at the North London Hospital, on the 24th of April 1838.

Elizabeth O'Key came into the area of the theatre in her right senses; Dr Elliotson put her in the accustomed manner to sleep, from which, as usual, she woke in the state of mes-

* We insert this communication as tending to put mesmerists on their guard against imposition on the part of their subjects.—Ed.

meric trance (that state in which most of the curiosities in mesmerism are seen). While she was making some observations, he suddenly darted his hand towards her face, which induced the coma, or sleep, again; she woke, as before, in a very short time; he then induced sleep by the following method—blowing in her face, passing his hand down quickly in front of her face and behind her back, or holding his hand extended towards her; she woke each time of her own accord, with a sudden start. He then passed his hand down in front of her face, with one finger extended; afterwards with two fingers extended, and afterwards with three. The effect was increased or diminished according to the number of fingers extended. After this he put her hands together, and bade her hold them fast, when he apparently forced her to separate them by the movements of his own hands, without touching hers; they seemed to separate in spite of her efforts to prevent them. She now mesmerised herself at the request of the Doctor; this she effected by waving her own hand towards her face, as though she were calling some one to come near her. This produced the sleep as usual. Some directions being written on a piece of paper by a gentleman* present, were given to Mr Wood (Dr Elliotson's assistant), who, having placed the girl near the door, with her back towards it, went out of the room, shutting the door after him, and then proceeded to follow the directions. (I may notice here, that this precaution had never, to my belief, been adopted before; it was usual not to be sufficiently careful in concealing from the patient or the bystanders what was about to be done, on the supposition that the former did not notice, and was incapable of taking advantage of, any thing which might be a clew to her actions.)

In the first place, he was to draw her downwards to the left side, which he endeavoured to do by passing his hand downwards in that direction. This was tried four separate times. At the end of each, after a short interval, she fell asleep with her head drawn backwards in a straight line. The girl not being equally susceptible at all times, they supposed she was but slightly so now, and in order to produce more susceptibility, Mr Wood came into the room, and moved his hands in several directions in front of her face, all of which movements she followed correctly; and when, standing behind her, he waved his hands over her head, she darted upwards out of her chair. This was repeated three different times, with the same result each time. Having now gained his object thus far, he went out of the room again, and did as he had done before. The first

* Professor Wheatstone, I think.

new effect seemed to me to be the same as before ; some one, however, said she moved a little to the left ; the motion must have been very slight, as Dr Elliotson himself did not notice it. This was considered a successful result of the first experiment. Mr Wood then proceeded with the second, which was to wave his hand upwards, in the expectation of her jumping upwards out of her chair, as she had done when he was in the room a few minutes before ; she, however, much to the astonishment of the exhibitors, made a sidelong movement downwards to the right. It was tried several times after this, but without success. The doors were now thrown open behind her, and, the passage being cleared, he walked slowly away from her, with his hands extended towards her head. When he had, in this way, gone four or five yards from her, she started backwards towards him with a convulsive movement. He then put a piece of mill-board on her lap, and attracted one of her hands towards his whilst some one held the board, so that she could not see which hand he was attracting. This experiment was successful. Lastly, she was made to take hold of her "sister's hand, who also is easily influenced ; they were then both put to sleep, but now it is difficult to rouse her ; but as soon as the hands are separated, or her sister is awakened, the difficulty no longer exists. The two sisters were to have been galvanised, but Elizabeth was roused too much in the last experiment ; that is to say, she was for the time brought to her right senses, and they allowed her to go away ; and Jane O'Key was determined she would not undergo the shock, and succeeded in making her way out of the room, in spite of the many violent but ineffectual attempts made to detain her ; and although they made her drop her head in sleep now and then by the usual means, yet the moment she was free from their handling, and while they were getting the apparatus to bear upon her, she each time darted away towards the door, until at last they were compelled to let her escape. It is worthy of remark, that it was usual for her (differing in this respect from her sister) to remain asleep till some one roused her by rubbing her eyebrows."

It is but fair to state, that although there were so many failures on the day I witnessed these things, yet generally the experiments were successful ; but it occurred to me at the time, and since, that when they were successful it was in consequence of the careless manner in which they were made. I was induced, therefore, to examine the subject a little more closely. I thought the best plan was to have a patient of my own, that I might try my own experiments. Dr Williams was kind enough to allow me to mesmerise one of his patients in St Thomas's Hospital, in whom, after a time, I succeeded

in producing the symptoms usually seen in the third and fourth stages. The following is an extract from my notes of the case, after she had arrived at some degree of perfection.

"May 10.—Having previously cautioned the bystanders not to express anything in their looks or gestures by which she might gather what I was doing; having also put wool in her ears to prevent her hearing what was going on, and pulled her cap down well over the back part of her head, that she might not feel my hand touching by chance any loose hairs as it approached her head, I went behind her, holding my hand steadily towards her head, and nearly close to it, for three or four minutes, at the end of which time she fell into the mesmeric sleep as usual. I had previously told her what I was going to do.

"11th.—I led her to suppose I was going to do the same as I had done yesterday; and, having taken the same precautions as before, I went behind her, but instead of remaining there, and holding up my hand, I went completely away from her. The effect, however, was the same as that produced yesterday. * * * *

"16th.—The usual effects were produced to-day by merely taking hold of her hand. It was now my wish to discover if these effects would be produced by the usual means, if they could be adopted without her knowledge. To ascertain this, great caution and some cunning were required, as she is very observant." * * * *

The details of the precautions used in the experiment would be tedious; it is sufficient to state, that I was close behind her with my hand almost constantly within an inch of her head, with nothing between us, such as a screen or curtain, for the space of half an hour; that this was done entirely without her knowledge, although she was perfectly awake, and sitting on the side of her bed; and that no sleep, or any other mesmeric phenomenon, was produced. But as soon as I changed my place, and stood with my hand still extended, but within her sight, she went off as usual. I was unable to try any more experiments on her, as she shortly after left the hospital, and I saw no more of her.

In one or two other instances where I have endeavoured to produce the symptoms, I have altogether failed. One of these I will briefly relate. A short time after the occurrences just told, being full of mesmeric power, I went on a visit to a gentleman in the country; whilst staying there, I met with the following case:—A woman about twenty-five years old, who had been for some time subject to fits, which usually came on regularly once a week, leaving her with one of her legs in a state of insensibility, which lasted some time.

When I first saw her she said she had not had a fit for more than a fortnight, which she attributed to the fact of having worn a ring made with the silver of three sacrament sixpences given to her by an old woman. There was insensibility of the leg from the foot to the hip, so that when I kicked her foot, or pricked it with a pin, she could not feel it. Thinking it a good case in which to try some mesmeric experiments, I endeavoured to produce the symptoms; but although I resorted to the usual means, and persevered for about twenty minutes every day for more than a week, I could produce no symptoms whatever, not even ordinary sleep. She had never heard of Mesmerism, and I took care not to let her know by any questions what results I expected to see.

IV. *Cases from the American Phrenological Journal.*

1. *Case of a greater development of certain perceptive organs on one side of the head than on the other.* By J. G. FORMAN.

The following case came under my observation during a visit to the state prison, at Sing Sing, and confirms, in the most striking manner, the discoveries which phrenologists have made in the physiology of the brain.

A female convict, Margaret Cain, among others, was brought in for examination. Her forehead presented a remarkable appearance in the region of the perceptive faculties, amounting to a deformity. The organs of Form, Size, and Locality, were extensively developed in the left hemisphere of the brain, while the same organs in the opposite hemisphere presented a marked deficiency. The left eyebrow, in the region of these organs, projected nearly half an inch beyond the other.

It appeared on inquiry, that early in July last, Dr Post, of New York, had performed several operations in the prison for strabismus, and this convict had been one of his subjects. Previous to this operation, the left eye had been turned in towards the nose, so far as to prevent its use from infancy; and the other eye, alone, had been exercised in the sense of vision.

Now let it be borne in mind, that the perceptive faculties are principally exercised through the medium of the eyes,—particularly the organs of Form, Size, and Locality; and it proves, beyond a doubt, the principle that exercise will enlarge, and neglect diminish, any of the phrenological organs, in the same manner that the muscles or any other organ of the body may be enlarged or diminished by the same means. In judging of the form, size, proportion, and position of objects, the

impressions are made upon the eye, and conveyed by the optic nerve to their appropriate organs in the brain. In this case, one of the eyes had never performed its functions, and those organs in the opposite hemisphere of the brain, with which it held communication, have remained small, as in infancy, from a want of natural and regular exercise : the other had always conveyed its impressions regularly to the brain, and those organs with which it communicated had become very much enlarged.

In addition to this, the case proves what is, perhaps, already established, that the organs in one hemisphere of the brain affect the opposite side of the body ; and that the optic nerves cross each other, instead of being united in the centre. Hence, in this convict the right eye had always performed the office of seeing, and the organs in the opposite hemisphere had attained their natural size, whilst the others remained small. It is remarkable that the greatest difference existed between those organs that are most exercised through the eye. The organs of Order and Number were nearly alike in both hemispheres, and could be exercised without the aid of seeing.

[The foregoing case, dated "Peekskill, March 1842," appears in the American Journal for April of that year, p. 113. Mr O. S. Fowler, the editor, adds, that having sent his artist to take a mask of the woman in question, he was forcibly struck, in looking at it, "with the fact, that just those organs which employ the eye in the exercise of their functions, and those *only*, namely, Individuality, Form, Size, Locality, and Colour, were much larger upon the side *opposite* the seeing eye, than over it—a point not before observed, and *the* point of the fact." But is not Order as much exercised through the eye as Locality, and may not the frontal sinus be larger on the one side than on the other ?]

2. *Changes in the forehead of Benjamin Franklin.* By O. S. FOWLER, New York.

Changes evidently took place in the head of Franklin. An engraving of him, copied from a portrait taken when he was a young man, will be found, which represents the perceptive organs very large, and Causality retiring, so as to leave his forehead narrow and sloping at the top, evincing prodigious Individuality, Form, Size, Locality, and Eventuality, and large Comparison, with but moderate Causality.*

We have also a plaster bust of him, taken from a marble bust made in France, by Oudon, whose accuracy in sculpturing is too well known to require comment. In this bust, chiselled

* See a recent Boston edition of his Works.

after a mask, taken from Franklin's face, and said to be a perfect likeness of him at that time,* his perceptive and reflective are both large, the perceptive rather predominating, but reflective prominent. But in the statue taken of him when old, and placed in a niche in the Franklin Library, in Fifth Street, near Chestnut, Philadelphia, Causality and Comparison stand out in the boldest relief, while Individuality and Eventuality are small. Most of the busts and engravings of this great philosopher found in shops, books, &c., represent him as old, and evince predominant reflective organs, but deficient perceptive. See the portrait of him in *Peale's Museum*.

Our next inquiry relates to the existence or absence of a *corresponding* change in his intellectual character. Of this we allow all to judge for themselves; but our firm conviction is, that *young* Franklin was remarkable for observation, memory in general, desire for acquiring knowledge, especially of an *experimental* character, and facility of communication, &c.; while *old* Franklin was all reason and philosophy, rich in *ideas*, full of pithy, sententious proverbs, which are only the condensation of Causality, and always tracing every thing up to the causes and laws of things, but less inclined to observe and remember facts *as such*.—Vol. iv. p. 53 of Part 2d, April 1842.

3. *Pain at the top of the Head, simultaneously with Excitement of Religious Feeling.* By O. S. FOWLER.

In 1838, a young gentleman from Del. Co., Pa., called on me for a phrenological examination. I found Veneration to be very large and active, his head high and long, and Marvelousness also fully developed. I told him he would take his *chief* delight in adoring his God, and also could often observe the hand of Providence in the events of his life. He then stated, that, for about year and a half, he had experienced a most excruciating pain in the *top* of his head; that his mind had been deeply and constantly exercised upon *religious* subjects; that when his mind was *most* troubled on that subject, the pain in the *top* of his head was most severe; and that he had called mainly to enquire what he could do to obtain relief. I directed him to wet his head frequently, especially upon the top, and to divert his mind as much as possible from religious subjects, by keeping it pre-occupied with other things.—Vol. iv. p. 127; May 1842.

* This original marble bust was, we believe, recently purchased by some scientific body in Philadelphia, and the *original mask*, taken from his face, was recently sold, among other effects of Oudon, for about two dollars, and was taken to Italy. Will not some American traveller in Italy procure this original, or a copy?

4. *A similar Case of Religious Excitement with Headache.*

By B. J. GRAY, New Fairfield, Connecticut.

Mr T. Parsels, of this town, has, for several weeks past, complained of having a most violent pain in the coronal region of his head. Knowing he had recently connected himself with the church, and that, of late, he had been very thoughtful upon religious subjects, I concluded it was probable an undue excitement of the organs had created the pain in his head ; inasmuch as he had made use of the usual remedies for headache proceeding from a disordered stomach. He also said it was entirely different from common headaches. I then asked him if religion were not the chief subject of his thoughts while awake. He answered, he could scarcely think of any thing else, that he had been uncommonly exercised in his mind on this class of subjects for the last two months,—had dreamed of hearing a voice that waked him from sleep, when at once the Saviour, clothed in white, appeared before him, and conversed with him. I asked if he experienced any pain after this vision. He said “ the pain was very severe across the top of his head.” I then placed my fingers on the organ of Marvellousness, and asked if the greatest pain were not there. He said it was. He has at other times, within a few weeks, dreamed of seeing the Saviour, and always experiences the same violent pain in the organs of Marvellousness and Veneration. I observed, in particular, that these organs were much warmer than other portions of the head. Veneration, however, is smaller than Marvellousness, and the pain is much more severe in the latter than in the former. Conscientiousness and Cautiousness are large, and this combination, I apprehend, produces his occasional doubts and fears of being lost, &c. I advised him to keep his mind from dwelling upon this class of subjects as much as possible for the present, and to work moderately ; then, if it did not subside, to apply a blister, which I thought would reduce the excitement, and he would soon be well. I am no doctor ; these are *simply* my views of the subject, and accord, I believe, with many similar instances recorded in your most valuable Journal.—Vol. iv. p. 174, July 1842.

5. *Deficiency of the Power of Distinguishing Colours.* By O. S. FOWLER.

I know a man in Philadelphia, who can distinguish but one colour, and was forced to abandon the chinaware business because he could not distinguish colours ; and yet he said he never saw a man who could read fine print with him. The Rev. H. H. Spaulding, missionary to the Rocky Mountain Indians, after I had examined his head, blindfolded, before an

audience in Prattsburg, and pronounced him destitute of Colour, stated that he could never distinguish colours, and never allowed himself to select his garments, but that all things had a dingy, indistinct, and similar look to him. Wm. Wharton, who lives in Spruce Street, near Fourth Street, Philadelphia, related to me the following: "Friend Fowler, thee examined the head of a friend of mine in Philadelphia, who could not distinguish between colours. Thee told him that he could not tell colours, and here, not long ago, wishing to purchase a piece of cloth for garments for his daughters, he found one, the texture of which suited him; but its colour was a bright red—a colour, thee knows, not very suitable for young Quakeresses—and when he brought it home, his wife chided him for buying a colour that was so gay, and so particularly obnoxious to Quakers. He insisted that it was dark brown; but it was a bright red." This man could judge well of the texture of cloth, but not of its colour.—Vol. iv. p. 292; Oct. 1842.

6. *Case of a Criminal in Auburn Penitentiary.*

Mr John Morrison, superintendent of the labouring department of Auburn Prison, has related the following of one of the convicts. He said that all phrenologists who have visited the prison have selected an old convict as having decidedly the worst head they ever saw on a human being. Last summer, while a state committee were in session at Auburn for the purpose, among other things, of recommending some of the convicts to pardon, and while this desperate convict knew that Mr Morrison was trying to procure his pardon, he arranged a plan to murder him. He broke his sheep shears (which he was using while weaving carpet for Mr M.), put wooden handles upon them, and thus made knives of them, with which he and several other convicts had arranged to stab and murder him. Judging from Mr M.'s head and character, he had given no occasion for an unkind feeling. The same convict was three years in prison in Algiers, Africa, and was sent to prison during life. Mr M. said that all the *cruel* convicts were sloping from the forehead to Firmness and Self-Esteem.—Vol. v. p. 48; Jan. 1843.

7. *Pain at the situation of the Organs of Number.*

Dr Hurd, of Canastota, Madison Co., N. Y., has reported the following. A girl in his practice, who was studying arithmetic with unusual zeal and earnestness, came home one day from school, saying that she felt a strong disposition to *count*, *add*,

subtract, and *multiply*; and complaining that her head ached. Her sleep, also, was continually interrupted by cyphering *in her head in the night*. These symptoms continued to increase for two days, until, at last, they became intolerable, and the family physician was called. He was a phrenologist, and no sooner learned that she experienced *pain* in the head together with this counting propensity, than he asked her what *part* of her head pained her? She replied, "Here," placing her thumb and finger upon the two organs of Calculation. He, of course, applied local remedies to the afflicted organ, with a view to allay the irritation, and soon effected a cure.—Vol. v. p. 96; Feb. 1843.*

V. *Case of Hysteria, with extraordinary Acuteness of some of the Senses.* Communicated by Sir G. S. MACKENZIE, Bart.

TO THE EDITOR OF THE PHRENOLOGICAL JOURNAL.

DEAR SIR,—The following copy of a letter from a clergyman was sent to me nearly six years ago, at a time when Mesmerism had not attracted my notice. The case referred to in it was evidently one of natural sleep-waking; and it is to be regretted that so little of it is known, as it appears to have been one of great interest. Now that the subject is better and more generally understood, we may hope that such cases, when they occur, will not be concealed. Yours faithfully,

G. S. MACKENZIE.

24th October 1843.

24th January 1838.

DEAR SIR,—It is perfectly true that our poor friend, who has now been some months with us, presents one of those singular and almost incredible cases of hysterical or nervous affec-

* It appears from the following paragraph in the *American Phrenological Journal* for July 1843, that the circulation of the work is by no means encouraging. "In the two last numbers the Journal has copied somewhat largely from the Edinburgh, partly for the sake of variety, as the two preceding numbers were wholly original, partly because of the intrinsic merits of the articles copied, and partly as a sample of the English Journal. Readers, which like you best? If you like the Edinburgh best, you can have it *entire* (after this year); but if you like the hasty productions of the editor's pen best, they are at your service. It is certainly much more *easy* to copy than to *originate*, especially as the editor gets nothing for it; all the time spent in editing the Journal is just so much time spent not only without his receiving any pecuniary compensation, but with an actual loss, as the Journal barely pays for its paper and printing. Tell us which you will have?"

tion which are at distant intervals witnessed under the dispensation of the Almighty.

The overthrow of the regular functions of the nervous system was occasioned by the almost sudden death of her father, to whom she was most fondly attached ; who was seized with illness during her absence from him, and died a few hours after she returned to her home. I cannot enter into any long details of the case, which has been attended with all those varieties which have long characterized the complaint, among medical men, as the Protean disorder. The extraordinary powers communicated to the other senses by the temporary suspension of one or two of them, are beyond credibility to all those who do not witness it ; and I really seldom enter into any of the details, because it would be but reasonable that those who have not seen should doubt the reality of them. All colours she can distinguish with the greatest correctness by night or day, whether presented to her on cloth, silk, muslin, wax, or even glass—and this, I may safely say, as easily on any part of the body as with the hands, although, of course, the ordinary routine of such an exhibition of power takes place with the hands, the other being that of mere curiosity. Her delicacy of mind and high tone of religious feeling are such, that she has the greatest objection to make that which she regards in the light of a heavy affliction from God, a matter of show or curiosity to others, although to ourselves, of course, all these unusual extravagances of nervous sensibility are manifest for at least twelve out of every twenty-four hours. She can not only read with the greatest rapidity any writing or print that is legible to us, music, &c., with the mere passage of her fingers over it, whether in a dark or a light room (for her *sight* is for the most part suspended when under the influence of the attack or paroxysm, although she is perfectly *sensible*, nay, more *acute* and *clever* than in her natural state) ; but, within this month past, she has been able to collect the contents of any printing or MS. by merely laying her hand on the page, without *tracing* the lines or letters ; and I saw her, last night only, declare the contents of a note just brought into the room, in this way (when I could not myself decipher it without a candle), and with a rapidity with which I could not have read it by daylight. I have seen her develope handwriting by the application of a note to the back of her hand, neck, or foot ; and she can do it at any time. There is nothing *unnatural* in this ; for, of course, the nervous susceptibility extends all over the surface of the body, but use and habit cause us to limit its power more to the fingers. Many, even medical, men, take upon themselves to declare that *we* are all (her medical attendants as well) un-

der a mere delusion. We ask none to believe any thing if they prefer not to do so, and only reply—The case is equally marvellous either way; either that this our poor patient should be thus afflicted, or that eighteen or nineteen persons of my family and friends, in the daily habit of seeing her, should fancy she is, for every twelve hours out of twenty-four, doing, at intervals, that which she is *not* doing. There are many exhibitions of extravagant powers which she possesses, that we talk of to no one; for, finding it difficult to acquire credit for lesser things, we do not venture on the greater. Her powers entirely cease the moment the attack passes off. A considerable swelling has at times been visible at the back of the head, which has yielded to the treatment.

This is a most hasty sketch of a case which would fill a folio. *Some* false things are reported, such as, that she can tell the colours when *in our pockets!* &c. All absurdities. All she does *consists* with our general *natural* powers. For myself, I can only say, that, much as I was confounded at first at what seemed *contrary* to nature, I now only see nature *run loose*, as it were, in the unrestrained powers of some of the senses, when others are suspended.

It is certainly a case which would be an instructive one in the consideration of the physiology of the human frame; but she, poor thing, is most averse to experiments being purposely made on her: but in her every-day life among us, we have no lack of proof, for all we believe and *know*.

Between the attacks she is as perfectly in a *natural* state as ever she was in her life. There is but one *paradox* in her state, and that is, that she can at such times hear *some* sounds and not *others*, though very much louder,—and see some things and yet not others, though placed before her. She could hear a tune whistled when she would not hear a gun fired close to her. It is certainly the absorption or absence of mind that occasions this; *absent* to some things, though *present* to others, like *any* absent man; and thus Dr Y—— accounts for it.

In making this communication to you, in part to vindicate the testimony of my friend Mr M——, I have really exceeded my usual custom and resolution, for I do not think it fair to the poor sufferer herself to make her too much the talk of others. Very few believe what we tell them, and, therefore, we are in no degree anxious to open our lips on the subject. All I know is, that I should not have believed it myself, had I been only *told* of it. I must beg, therefore, that you will not make any undue use of this communication, by handing my letter about to any one. The friend for whom you ask the in-

formation is perfectly welcome to read it, or I should not have written it. If the case were my own, the world should be welcome to it; but a young female of much sensibility might be much embarrassed by finding the world at large in possession of all particulars on her recovery, should God so please to permit.—I am, &c.

[The following case of uncommon acuteness of the sense of touch is extracted from Southey's *Omniana*, vol. ii. p. 18.—ED.]

“When I was in Germany, in the year 1798, I read at Hanover, and met with two respectable persons, one a clergyman, the other a physician, who confirmed to me, the account of the upper-stall master at Hanover, written by himself, and countersigned by all his medical attendants. As far as I recollect, he had fallen from his horse on his head, and in consequence of the blow lost both his sight and hearing for nearly three years, and continued for the greater part of this period in a state of nervous fever. His understanding, however, remained unimpaired and unaffected; and his entire consciousness, as to outward impressions, being confined to the sense of touch, he at length became capable of reading any book (if printed as most German books are, on coarse paper) with his fingers, in much the same manner in which the pianoforte is played, and latterly with an almost incredible rapidity. Likewise by placing his hand, with the fingers all extended, at a small distance from the lips of any person that spoke slowly and distinctly to him, he learnt to recognise each letter by its different effects on his nerves, and thus *spelt* the words as they were uttered; and then returned the requisite answers, either by signs of finger-language to those of his own family, or to strangers by writing. It was particularly noticed, both by himself from his sensations, and by his medical attendants from observation, that the letter R, if pronounced full and strong, and recurring once or more in the same word, produced a small spasm or *twitch* in his hand and fingers. At the end of three years he recovered both his health and senses, and, with the necessity, soon lost the power which he had thus acquired.”

III. NOTICES OF BOOKS.

I. *Zeitschrift für Phrenologie, &c. &c. Drittes Heft.* September 1843. Heidelberg: Karl Groos.

The German Phrenological Journal. Edited by GUSTAV VON STRUVE and EDWARD HIRSCHFELD, M.D. No. III. September 1843. Heidelberg: Karl Groos. 8vo.

We observe with pleasure the steady progress of our German contemporary. The present Number contains a variety of interesting communications, the matter of some of which, though new in Germany, it would be superfluous to lay fully before our readers. Article I. is a translation of that section of Dr Gall's work "Sur les Fonctions du Cerveau," which expounds the anatomical evidences in favour of a plurality of the organs of the mind.—Article II., "On the Reflective Faculties, by Gustav Von Struve," is a clear exposition of the functions of the organs of Comparison and Causality, compiled from other phrenological works, and enriched by some acute observations of the author, a portion of which has already been published by Mr Combe, in the 5th edition of his *System of Phrenology*, vol. i. p. 181.—Article III.—Account of Traugott Julius Schönberg, a musical genius, who died at the age of five years, by R. R. Noel, Esq. The cerebral development of this boy is strongly confirmatory of Phrenology.—Article IV. Cases of morbid excitement of different organs, by Dr Hirschfeld. The first case reported is that of a coachmaker at Bremen, the inventor of a new kind of self-moving carriage, and whose Constructiveness became so much excited, that whenever he thought of the least thing related to that faculty, he felt a severe headache in the situation assigned to its organ. Two other cases of cerebral disease are extracted from the *American Phrenological Journal* and our own pages.—Article V. is a paper by Mr Von Struve, entitled "Johannes Müller and Phrenology." This we consider to be by far the most important contribution to the present Number. Johannes Müller, as many of our readers must be aware, is an eminent physiologist and professor in the university of Berlin. In his particular science, he occupies the highest rank among its living cultivators. His *Elements of Physiology* is familiar to the English student in the translation of Dr Baly. In that work, the learned professor unintentionally furnishes many striking proofs of the soundness of phrenological doc-

trines, whilst he himself is still an opponent of Phrenology, and builds on his physiological researches an altogether arbitrary speculative system of psychology, which is mainly copied from Spinoza. Mr Von Struve endeavours to prove in the article under our notice—and we think he has very successfully done so—the inconsistency of Müller's speculations with the results of his investigations based upon facts. Perhaps we shall find an opportunity of laying before our readers, in the form of a translation, the greatest part of Mr Von Struve's article, as the arguments adduced in it do not admit of being well exhibited by extracts. We have no doubt that this paper will tell with excellent effect upon those readers who are open to conviction.

Mr Von Struve seems to be indefatigable in his exertions to spread Phrenology in his native country; for most of the articles contained in this Number are the productions of his pen. In one "Upon Primitive Christianity, Protestantism, and Catholicism," he shews the close relation which creeds bear to the cerebral development of the general body of their professors. "Communications on Phreno-Magnetism continued," are likewise by the same writer. They are extracted from English and American publications, with which we have already made our readers acquainted.

The department entitled "Review of Books" has again been provided for by Dr Scheve. He first refutes the errors of Mr Förg, a medical man, it seems, who, in a review of Mr Von Struve's work on "Phrenology in and out of Germany," still clings to the old notion that Phrenology is nothing but craniology. The first books noticed—we cannot say reviewed—are Mr Combe's *System of Phrenology*, and his *Constitution of Man*, both of which are praised, and recommended to the attention of the German public. In our opinion, the latter work would have a better chance of becoming popular in Germany, if, besides the existing translation by Dr Hirschfeld (who is also the translator of the *System of Phrenology*), a German edition were prepared by Mr Combe, especially intended for German readers. In such an edition we conceive he might with advantage omit all the theological matter; for this, referring, as it does, chiefly to the opinions of British divines, is quite unpalatable to the Germans, however suitable such discussions may be in our own country.

Under the head "Miscellanies," we find little that demands particular notice in this place. The concluding article is a translation of a letter from Dr Charles Caldwell to Mr Von Struve, in which the writer expresses his conviction

that the time is at hand when Phrenology will be fully appreciated in the country of its birth. There is published in this Number, an invitation signed by ten individuals (Gustav Von Struve, Drs Hirschfeld and Scheye, Professors Cotta, Friedreich, and Grohmann, Messrs Noel and Schatler, and Counts Thun and Wartensleben), to form a Phrenological Association in Germany. Should this be, as we expect, accomplished soon, the fulfilment of Dr Caldwell's prophecy will be greatly hastened.

II. *The Object of the Sunday Lectures at the Philosophical Institution, Beaumont Square, Mile-End, London: Stated in a Lecture delivered in the Chapel of the above-named Institution, May 15. 1842.* By PHILIP HARWOOD. London: C. Fox.

A short notice of this Institution, founded and endowed by the late J. T. Barber Beaumont, Esq., was inserted in our 14th volume, p. 389; but many readers may be pleased to see a more ample statement of its nature and objects. These are so clearly and comprehensively set forth in the Report issued by Mr Beaumont's Trustees in January 1842, that we cannot do better than present it entire:—

“ In entering on the second year of the existence of this Institution, the Trustees on whom the duty has devolved of carrying into effect the intentions of the Founder, are desirous of obtaining the attention of the principal inhabitants of the neighbourhood to the important and beneficial purposes contemplated in this foundation.

“ The practice of meeting together for mental improvement and recreation, by means of Lectures, Reading-Rooms, Concerts, Choral Classes, and other such arrangements, is favourable alike to intellectual culture and to the social virtues and affections. As a means of moral amelioration, it is more powerful and salutary than either vehement denunciations or stringent penal enactments. The mind that has learned to interest itself in objects connected with the higher intellectual and moral faculties, gradually acquires a distaste for gross and coarse indulgences, and thus vice and misery are assailed in the surest and most effectual manner, by suppressing the causes in which they originate, and cultivating habits with which they cannot permanently co-exist. The perception of this truth has of late years been rapidly gaining ground with thoughtful

and practical philanthropists; and, accordingly, much earnest effort has been devoted to the establishment and support of institutions calculated in various ways to promote the objects above mentioned.

“Very much, however, yet remains to be accomplished. In particular, no provision has been made by any of the institutions now alluded to, for meeting the wants of the Sunday,—that day of rest, on which, more than on any other, the mind possesses opportunity and inclination to occupy itself with the highest and noblest objects of thought. It would appear to be assumed, that mental recreation and improvement on the one hand, and religion on the other, are so incongruous and mutually repellent, that to attempt combining them in one system of arrangements were unseemly, if not impracticable. The grounds of this assumption are not easily intelligible. It seems a more legitimate, as it is certainly a more pleasing conviction, that a ‘cheerful heart’ is an ‘acceptable sacrifice,’ and that ‘the invisible things of God,’ so far from being obscured, are more ‘clearly seen,’ when ‘understood from the things that are made.’

“The Institution in Beaumont Square is planned and conducted in accordance with this conviction. In addition to the arrangements of the week (which embrace the usual objects of Philosophical and Mechanics’ Institutions), lectures are delivered on Sunday mornings, introduced by sacred music, and by some of the forms with which Divine Service is usually associated in this country. These lectures consist of moral exhortations, and of such religious and philosophical inquiries as the minister deems best fitted to interest and improve his hearers; the general object and tendency of the whole being to inspire the love of virtue, and to supply motive for the discharge of duty.

“The Sunday Evening Lecture is usually devoted to the examination of some branch of physical science, considered in connection with the moral and religious lessons which it suggests. The subject affords inexhaustible variety; and the numerous and attentive audiences which these lectures have already attracted, prove that Natural Theology is capable of inspiring an interest not less profound, and perhaps more enduring, than religious topics which aim more directly at excitement.

“The facts and laws of moral and physical nature constitute, therefore, the main basis of the lessons inculcated in the Chapel of the Institution in Beaumont Square. All further information that may be desired on this point, is furnished in the most frank and ample manner in the ‘Manual’ composed

and compiled by the Founder, which is used in the Sunday Morning Service. It will there be seen, that, while none of the peculiar tenets of religious sects and parties are adopted as a creed, moral truth and wisdom are cordially welcomed, from whatever quarter they may spring. It is not thought desirable to exclude altogether the notice of theological controversies, and of the revolutions in opinion with which they have been connected. The history of religion forms so conspicuous a feature in the general history of the human mind, that it would indicate a culpable indifference or timidity entirely to pass over, in a continued course of moral instruction, the many valuable and important lessons derivable from it. It is obvious that subjects of this kind, on which considerable difference of opinion prevails among inquiring minds, require the exercise of much candour on the part of hearers. The lecturer, if he speak with that entire sincerity and freedom, without which public instruction loses its force and efficacy, must occasionally give utterance to thoughts resulting from his own individual studies and reflections, and for which he alone is responsible. It is hoped, however, that a source of common agreement will never be wanting in the exercise and cultivation of that spirit of free inquiry, toleration, and charity, in which all may unreservedly unite.

“ The munificence of the Founder, and the generous aid of his son and successor, render this Institution independent of popularity, or extraneous support; and it is the intention of those who are entrusted with its management to persevere steadily in their course, disregarding prejudices which they believe to be but temporary and partial, and confiding in the ultimate ascendancy of those benevolent and enlightened principles on which the establishment is based. At the same time, they cannot but feel earnestly desirous of that popular support which, while it indicates the adaptation of the Institution to popular wants, will enable them to extend its efficiency yet further; and it is with much satisfaction that they contemplate the result of the first year of its existence, in the numerous and respectable body of subscribers that have availed themselves of its advantages. The support and countenance of additional friends, and especially of the influential inhabitants of the populous vicinity in which the Beaumont Square Institution is situated, will furnish them with the means of increasing its interest, and enlarging its usefulness; and to the attention of all such, this Institution is recommended, as a means by which they may powerfully contribute to the mental enjoyment and improvement of themselves, their families, and their fellow-creatures.”

Mr Harwood, in the pamphlet of which the title is prefixed to this article, speaks chiefly of the Sunday Services and Lectures, "partly," says he, "because these constitute the most peculiar and distinctive feature of our Institution, and also because it is of these alone that the nature of my connexion with you enables me to speak with full personal knowledge." He quotes, from the Advertisement prefixed by Mr Beaumont to his "Sunday Manual," the following statement of the general purpose of the meetings on that day:—"To afford Christians of every sect, and the religiously disposed of all persuasions, the satisfaction of assembling together for divine worship, and of having their minds refreshed and invigorated by expositions of the principles which naturally produce peace and happiness, free from the supernatural creeds upon which mankind are divided and exasperated, the chapel in Beaumont Square has been opened and endowed." We learn from Mr Harwood, that, in pursuance of this plan, lectures were delivered in the chapel during the successive Sundays of the preceding year, by Mr Thomas Wood, on the following subjects:—Ancient Philosophy; Integrity; Primitive Christianity; Paul's Defence of himself before Agrippa; the Corruptions of Christianity; the Relative Duties of the Rich and Poor; Mahomet and Mahometanism; Popery; the Irascible Emotions; the Protestant Reformation; and the Spirit of the Age: and, by Mr Harwood himself, on the True Principle of Mental Tolerance; Reason and Revelation; the Spirit of Antagonism and Negation; Six Lectures on German Anti-supernaturalism; Four Lectures on Life, considered under its various aspects of Success and Failure; Two Lectures on the Moral Importance of Little Things; Two Lectures on Self-help; the New Year; Two Lectures on Falsehood, as generated and upheld by Social Usages and Institutions; the Love and Pursuit of Truth; the Christening of the Prince of Wales; Two Lectures on the Life and Character of Priestley, and his Work as a Theological Reformer; the Spirit of Exclusion and Monopoly; the Childlike Character; the Relation of Theological Opinion to Religious Faith; the Spirit of Hebrew Poetry; Four Lectures on the History of the Hebrews, considered under its leading Epochs—the Patriarchal Age, the Heroic Age, the Age of National Development, and the Age of Calamity and Hope; the Relations of the Hebrew History and Poetry to Christianity; Two Lectures on Cheerfulness; and one on the Bible, its Use and Value as a Source of Moral Instruction, and its Relations to Natural Religion. In the Sunday evenings were delivered, during the winter months, Six Lectures on the Philosophy and Moral Uses of History; Thirteen Lectures

on Human Physiology, considered with reference to Natural Theology ; and Four Lectures on the Destination of Man.

In lecturing on these topics, desultory and disjointed as they appear, an essential unity of spirit and definiteness of aim was preserved. A more methodical kind of teaching, says Mr Harwood, would be necessary, " if *instruction*, in the low and limited sense of the word—the mere communication of knowledge *as* knowledge—were the sole or chief aim which we have in view. But this is not by any means our sole or chief aim. The object of these Sunday lectures (more especially of the Morning ones) is not merely, nor mainly, the communication of literary and theological knowledge, but the forming ourselves to those habits of clear, wise, large, and vigorous thinking on moral subjects, and manful dealing with the moral realities of life, which our Founder has designated by the familiar phrase ' Practical Religion and Morality.' In one word, our aim is to learn and teach Moral Truth ; truth of moral sentiment and conduct ; that truth which is written on the heart, and illustrated in the life of man ; whose ultimate standard is to be sought in the most enduring and universal characteristics—what we call *the spirit*—of humanity ; and which all literatures, politics, religions, and philosophies embody and express, here a little and there a little."

With respect to theological tenets he says : " We have no creed in this Philosophical Institution ; strangely would our style and title be stultified if we had one. . . . Let me add, that our position here is not, mainly and chiefly, one of antagonism towards the creeds and forms of opinion now existing in this country. Antagonism there is, no doubt, more or less, in our position. . . . Still this is not the principle and purpose of our institution. It is not specifically *the work* which we have to do. It is never any thing more than an incidental result of that intellectual and spiritual freedom—that liberty of prophesying, which, in truth, *is* the rock we build on, or (to use a fitter metaphor) the air we breathe. Our antagonism is only incidental. The purpose and spirit of this institution, as of its Founder, is not repulsion, but attraction ; not exclusion, but comprehension ; not denial, but affirmation ; not doubting, but believing. We are not afraid, indeed, of scepticism ; we do not denounce and abhor it ; we think a reasonable, considerate scepticism a good and healthy thing, so far as it goes ; but we do not depend on scepticism to keep us alive and awake ; we do not make it our Whole Duty of Man."

We trust that the Beaumont Institution will be so conducted, as permanently to uphold its title to the character claimed

for it by the Trustees—that of “an important boon to the eastern parts of the metropolis.” It offers at a moderate cost the privilege of using, (1.) A news-room, in which the principal morning and evening papers are provided, and filed; (2.) A reading-room, in which several periodicals are taken in and filed; (3.) A library for reference; (4.) A library for circulation; (5.) A museum of Natural History, in the departments of Geology, Mineralogy, and Conchology; (6.) A musical class for the practice of choral and glee singing; (7.) Classes for other modes of improvement or recreation, when a sufficient number of members desire them; (8.) Concerts and lectures frequently on the evenings of the week; and, lastly, the Sunday lectures, of which we have already spoken.

The funds of the Endowment, together with the sums laid out upon the building by the Founder and his son Mr J. A. Beaumont, amount to about L.19,000.

III. *The Phrenological Theory of the Treatment of Criminals Defended, in a Letter to John Forbes, Esq., M.D., F.R.S., F.G.S., &c., Editor of the British and Foreign Medical Review.* By M. B. SAMPSON. Highley, London. 1843. 8vo., Pp. 20.

This able *Letter* has been called for by the strictures on the author's work on Criminal Jurisprudence, which appeared in the thirty-first Number of the *British and Foreign Medical Review*. Several writers on the plea of insanity in criminal cases are there grouped together, and disposed of in one article. We noticed these strictures in our last Number, and characterised them as “much too severe and indiscriminating,” and “seemingly dictated more by a strong prejudice, than by a calm and impartial examination of Mr Sampson's views.” In making use of the expression “too severe,” we did not mean that the views merited any degree of severity. As phrenologists, we are led to concur in the leading views of Mr Sampson, as inevitably deducible from the principles of our science—the physiology of the brain. We know that the *British and Foreign Medical Review* has acknowledged the truth of Phrenology; but, in a corps of contributors, there must be different degrees of knowledge of the subject, and different degrees of qualification for applying its principles; and we are not surprised that, in a journal not exclusively phrenological, an article may sometimes be admitted which would not pass the ordeal of our own editorship.

Mr Sampson's views are, above all others, such as the re-

viewer was least prepared for, and such as, "in the present day," would generally appear supereminently "wild and reckless." He is right in one sense when he says that the day is not come yet for them. "For the reception of such a theory," says the *Jurist*, "the public mind does not appear to be fully prepared; but at the same time it is obvious that the current of opinion is running in that direction." Ample evidence of this is furnished by the publisher's advertisement of Mr Sampson's second edition, in approbatory extracts from a long list of some of the most enlightened and influential journals in the country.

It is amusing to find that very complacent entity called "Common sense" (which, being interpreted, means every one's peculiar prejudice), denouncing what it calls "theory," in other words, any attempt to regulate practice by principle, and recommending the application of its own hatchet to all knots and difficulties that come in its way. Yet your common-sense reasoners are themselves theorists. They all propound rules, maxims, and dogmas, differing from those they condemn, only in being destitute of philosophical principle, and propounded with greater confidence. The general pitch of the *British and Foreign Medical Review* is far above the "common-sense" level; and therefore we regret the more that Mr Sampson's work was put into unphrenological hands.

We must refer our readers to the *Letter* itself for Mr Sampson's defence of the phrenological theory of the treatment of criminals; for we are quite at a loss to give an abridged view of it. Addressing the editor of the *Review*, he says:

"The propositions contained in the work which you denounce may be stated as follows—viz:

- "1. That every manifestation of the mind depends upon the conformation and health of its material instrument the brain. That it is not the function of a sound and healthy brain to give rise to any other than healthy manifestations, and that, consequently, no error of judgment or conduct* can ever arise but as the result of a defective condition of that organ.
- "2. That the laws which govern the conformation and growth of the brain are precisely the same as those which govern all other organs of our system; and hence, that the various conditions of brain, and consequent varieties of disposition, are to be attributed solely to the effects of hereditary transmission, and the subsequent influence of external circumstances.

* Except errors from ignorance.—EDITOR.

- “3. That if the foregoing proposition be correct, the treatment of the morbid manifestations of the brain should be carried on upon the same principle as the treatment of the morbid manifestations of any other organ; and that it must be irrational to inflict punishment upon the sufferer from an ill-conditioned brain, at the same moment that we expend our utmost care and pity upon the victim of ill-conditioned lungs.

“Standing on these positions, the work proceeds to show that the inconsistency of society in punishing men for disorders of the brain, so far from having ever yet tended to diminish crime, has been one great cause of its increase, and that it can only be safely and effectually subdued by adopting towards the sufferer the same mode that we should employ if his disorder, instead of being seated in the brain, were seated in any other organ; namely, by benevolently directing our sole efforts to the mitigation of his infirmity.

“I may add, that in working out the above propositions I touched upon the glaring evils constantly taking place from the confused notions at present entertained regarding the nature of man's responsibility to his fellow man; and after having exposed, by the evidence of the most eminent physiologists, the unsoundness of the belief that there are certain descriptions of crime which result from defective organization, and which should therefore be treated compassionately under the plea of irresponsibility, and that there are other descriptions which are independent of organization altogether, and should therefore be treated by punishment, I furnished what I believe to be the only definition consistent with common sense,—viz. ‘that, so far from the Creator having sent into the world some beings who are responsible and others who are exempt from responsibility, there is, in fact, no exception whatever; and that every human being is alike responsible,—responsible (according to the degree of his departure, either in mind or body, from that degree of sanity necessary to the proper discharge of his social duties) to undergo the painful but benevolent treatment which is requisite for his cure.’* ”

“From this it would be seen, that I hold that the mere fact of an individual having committed or attempted to commit a

* It ought not to be forgotten, that, in the opinion of Mr Sampson, the pain of imprisonment and “benevolent treatment” is sufficient to inspire that dread which is unquestionably an effectual means of deterring multitudes from crime. In the fact that such external motives increase the power of withstanding the impulses of an ill-constituted brain, we perceive, to that extent, a difference of circumstances between the brain and all other parts of the body.—EDITOR.

crime, should be taken as sufficient evidence that his mind is in an unsound state, since in any society the only test we can have of insanity is that which is furnished by the existing laws. There is no individual in whom an harmonious balance of all the mental powers is to be found, and consequently, if we speak with rigorous exactness, 'no human mind is in its right state;' but societies by their laws define *what they consider to be* the proper manifestations of the mind, and the various acts which indicate its depravity. The man who acts in strict conformity with all the laws and customs to which society demands obedience, is held by that society to be a 'right-minded man;' while he who infringes any of them is held, to the extent of his infringement, to be of 'depraved mind.' The terms sanity and insanity have hitherto not been used, because it has been the custom to regard the manifestation of the feelings and passions as taking place in complete independence of the health or sound conformation of the brain; but the error of this belief having been fully demonstrated, we are at once compelled to take unsound acts as evidences of an unsound brain; and hence obedience to the laws in criminal, and to the customs of society in civil cases, must come to be regarded as the true tests of mental sanity."

The reviewer apparently rejects this test of soundly-constituted and healthily-acting brain—that it fulfils the conditions of social order, by obeying the laws which bind society together; these, of course, including the laws against violations of morals which constitute crime. He thinks it a "singular" test, and, meaning to ridicule it, the state of those who obey, "social sanity." This, however, we consider a most appropriate name, seeing that all acts of an ill-constituted brain are essentially anti-social. He then goes off from the principle of the test, and takes post on the supposition of ignorance of the law, or arrival from a country where the laws are different from ours; which last is nothing else than ignorance, with its origin or cause annexed. Mr Sampson, in a few sentences, shews that these objections do not touch his principle. With regard to those moral laws, the violations of which are crimes by the universal consent of mankind, no individual living in society at all is ignorant of them; while laws of mere arbitrary enactment require first to be known, when a man of sound mind will obey them as his part of the social compact in the country where he resides for the time. Under the denomination of the laws of society, are, of course, included its conventional code of manners and customs, which the sane conform to, and which the insane so notoriously violate, as to furnish by that alone the first suspicion of their

derangement, and judicial evidence when their state comes to be the subject of trial. So far from being singular, the test is the obvious one to which all resort; and we wish the reviewer had tried to furnish a better.

We suspect that the reviewer, from his evident habits of thinking on the subject, narrows the interpretation of Mr Sampson's term "ill-conditioned brain," to mean the antecedent of absolute madness. No doubt it includes the cause of what, in common speech, is called insanity, but is much wider in its range, and embraces all varieties of unsound mind, leading to acts which violate the laws and customs of society.* It is obvious that society may suffer from these in a long scale of degrees; many will rise no higher than harmless absurdities or extravagancies; but whenever the actions become deeply injurious or dangerous to society, the "depravity" from which they proceed requires speedy restraint and curative treatment. We are surprised to find the reviewer apparently disputing that there are degrees of mental unsoundness indicated by the degrees of depravity manifested in the actions.

Much the greater part of the *Letter* is occupied with answering the reviewer's objections to the new doctrine, that vindictive punishment is a useless cruelty, unworthy of an enlightened and moral age; and that the utmost length of man's responsibility to his fellow-man, is restraint, seclusion, and care, when he is morally diseased. The reviewer treats this doctrine, to which, nevertheless, expounded as it has been by several writers, the practice of this and other enlightened countries is tending, with the same ridicule and scorn, as a Huron or Esquimaux would do, were it propounded to him. We do regret that the vanishing doctrines, or rather unexamined feelings, of vengeance, and retribution, and scorn of the humane treatment of the unhappy criminal, should have found their way into the *British and Foreign Medical Review*. Mr Sampson's reply is in terms as mild as it is powerful: Its severity consists in its total demolition of his opponent's reasoning. We should only weaken his argument by attempting to abridge it; we cannot, however, withhold one eloquent passage:

"The remark, that 'in every case the individual perpe-

* In reviewing Mr Sampson's work (vol. xv. p. 59), we remarked, that, "as all writers on the subject limit the term 'insanity' to *disease* of the brain, either organic or functional, there is some danger of confusion of thinking and expression in the author's unlimited sense of the word," including, as he makes it do, the results of mere disproportion among the parts of a *healthy* brain. By thus unnecessarily and unwarrantably extending the meaning of the word, he has exposed himself to misconception and misrepresentation on the part of those who overlook or forget his definition, and to the sneer implied in the question, Do you really mean to say that every breaker of the law is a madman?

trating the crime is to be regarded with pity as an unfortunate sufferer,' is, I presume, intended as a sneer. If such is the case, I wish that you had spoken more plainly, for it is not pleasant to adopt, without absolute certainty, the inference to which it seems to lead. Surely you cannot intend to imply that the victim of a depraved mind is *not* an unfortunate sufferer, or that we should limit our benevolence to those who obey our laws and accommodate themselves to our own nature? It certainly requires no great amount of self-denial to look upon all men as brothers, so long as they abstain from injuring us. But it has been contended that benevolence should be an ingredient of every act which one mortal may perform to another, and that the amount of force with which it is exerted should bear an exact proportion to the degree in which a fellow-creature stands in need of it; and as I cannot conceive a being more in need of all the aid which pity would prompt us to bestow, than he, who, reduced by crime to the level of the brute, is yet denied the privilege of the brute, to live unconscious of a to-morrow; so I contend that it is on behalf of that fallen creature that the highest exercise of our benevolence is demanded. Doubtless it is a hard trial of philosophy, instead of retorting wrong for wrong, to employ ourselves solely in devising means for the permanent good of the offender; but it is in the power of enduring this trial that the very difference consists between ourselves and the wrong-doer."

When reading the criticism of the same article on the views of several other writers on insanity, with regard to the difficult question, as they all regard it, of the "line" dividing responsibility from irresponsibility, we were never more satisfied with the admirable doctrine of Mr Sampson, which has all the value of a discovery in morals,—that there is no such line. When a criminal act has been committed, its actor is *eo ipso* responsible; in other words, liable to seclusion, restraint, and, if possible, cure. It is a question for after-consideration, whether his treatment shall be in the lunatic asylum or the penitentiary.

The *Letter* concludes with the following temperate and well-written reproof:

"In bringing this letter to a conclusion, let me express the strong regret I feel at the necessity of sending it forth. The reputation you enjoy for talent and general worth would have induced me, at all times, to notice with respect any candid objections that might have proceeded from your pen; and I trust that, even in the present case, although you have thought proper to ally your criticism with language almost approaching to vituperation, I have not spoken more strongly than is con-

sistent with that feeling. I would at the same time take the liberty of pointing out to you the evils that must arise, when a reviewer, instead of encouraging the free expression of opinion in relation to a subject upon which much darkness prevails, and on which, consequently, any opinion properly expressed should be received with thankfulness, avails himself of his power over the public mind to throw odium upon those who venture upon its discussion. In treating of such a subject as criminal jurisprudence, and in taking, as I have done, the unpopular side of the question, a writer could have no motive beyond the fulfilment of the dictates of his conscience. This consideration should at least entitle him to respect; and if he succeed in bringing forward a single fact in illustration of his subject which had previously been lost sight of, it should be conceded, looking at the momentous nature of his theme, that his labours have not been altogether vain.

"I feel entitled to press these considerations upon you, because, setting aside the correctness or incorrectness of my views, I think it will be acknowledged that the work in which they are put forth does not contain a single passage that would justify the tone which characterises your notice of it. Bold as its views may appear, I gave them unhesitatingly to the public, because I felt satisfied that where an earnest desire was manifested to arrive at truth, and at the same time to avoid the offence of treating the opinions of others with disrespect, an author, however much his doctrines might be disputed, would be sure of gaining from the press a friendly and considerate reception:—I need hardly say that this belief has been fulfilled to a remarkable extent; the only exception with which I am acquainted being furnished by the *British and Foreign Medical Review*.

"Although it is unnecessary that I should trouble you with a remonstrance against each of the epithets which you have bestowed upon my doctrines, I must be permitted to conclude with one remark in relation to them. Believing that the precepts by which we are enjoined to love our enemies, to do good to them which hate us, and to hope for forgiveness only as we forgive others, contain the truest wisdom ever addressed to the human mind, it was natural that I should endeavour to promote as far as possible their practical adoption; and when I consider that these views have received the *professed* adherence of a large and increasing portion of mankind, during a period of eighteen hundred years, I cannot but feel that, however erroneous you may consider them to be, the terms you resort to in stigmatizing them as 'wild and reckless,' are not merely offensive, but singularly inappropriate."

IV. *Mesmerism ; its History, Phenomena, and Practice ; with Reports of Cases Developed in Scotland.* Edinburgh : Fraser & Co. 1843. 12mo. Pp. 240.

This work, it appears, was compiled by the author, Mr William Lang, of Glasgow, in consequence of his having witnessed many of the extraordinary phenomena of Mesmerism exhibited in certain cases which had attracted a considerable degree of attention, chiefly, we presume, in Glasgow and its neighbourhood. It does not profess to contain much that is original, except the cases related in the fifth chapter ; but the author is entitled to credit for the pains he has taken to collect, from various sources, a great deal of curious and interesting matter, relating to the past history and present state of Mesmerism, which is compressed into small bulk, and given in an easy and pleasing style. The book is thus very well calculated to amuse the curious, and to excite the attention of those to whom the subject is new, although it will scarcely convince the serious and philosophical inquirer after truth.

In his preface, the author avows his belief in all the *ordinary* phenomena of Mesmerism, and he gives implicit credit to all the extraordinary facts, or apparent facts, which are brought forward, provided they have occurred under his own observation, or have been detailed by others upon evidence which he thinks satisfactory and conclusive. We are convinced that Mr Lang has examined into the facts and phenomena of Mesmerism with as much freedom from prejudice as *he possibly could* ; we have little doubt that he set out in his inquiries with a determination to take for his motto, " Are these things so ? " as he advises others to do, and with a resolution to discover truth, if possible, and to pursue it whithersoever it might lead him. But, even with this determination, it is still not at all impossible that, after entering upon the subject, and passing the threshold of scepticism, there has arisen in his mind, gradually and almost unconsciously, a disposition to attend to and believe every thing in the slightest degree confirmatory of his favourite opinions, and pass over hurriedly, or overlook altogether, every thing of a contrary description. We say, it is not at all impossible that this has happened ; for it is just what takes place, to a certain extent, with all zealous supporters of a favourite theory. In such persons there appears to be a positive obliquity of perception, in consequence of which, and of preconceived notions, they see and report things as existing, which exist only in their own imaginations ; and are thus disqualified to be impartial

and accurate observers and narrators of facts. Although, then, our author strives hard to be considered merely an unbiassed and unprejudiced *observer*, and a faithful historian of *actual occurrences*, a very cursory perusal of his book will be sufficient to detect the numerous "*false facts*," and the many specimens of defective evidence, and of the misapplication of evidence, which it exhibits.

The work consists of nine chapters, the first of which contains a historical sketch of Mesmerism, and some account of Mesmer himself. The second gives a summary of the theories which have been proposed to explain the phenomena. The third treats of the phenomena and states of Mesmerism; the fourth of its application to medical science. The fifth details cases of its application to the cure or relief of disease. The sixth is entitled "Mesmeric Processes;" the seventh, "Phreno-Mesmerism;" the eighth, "Trials of Mesmerism on the Brute Creation;" and the ninth concludes the subject with a few general remarks.

The most interesting of the original cases detailed in the fifth chapter is that of Isabella D——, which is given at great length. The patient was a woman of 28 years of age, "subject to convulsive fits of a very anomalous character, which had long withstood all the ordinary plans of treatment," and had amounted to the almost incredible number of from sixty to seventy in one day. She had not been out of the house for a twelvemonth, and could not do the easiest household work. A very minute account is given of her various ailments from the year 1824, and of the different means employed under many medical practitioners for her relief. It appears, however, that it was altogether a very extraordinary case; and although she was often benefited, and her complaints relieved, by the medical means employed, they soon returned, and reduced her to the unhappy state described in the report. It was at length proposed to try the effect of Mesmerism; and after sundry applications of the influence by Mr Dove, and the exhibition of many wonders of *clairvoyance*, a cure ensued. A very curious account is given of another girl, named Isabella H——, forming case 2, who likewise exhibited all the marvels of *clairvoyance* to great perfection; visiting in imagination places she had never been in, describing places and persons she had never previously seen, and even relating what the people were saying—telling family secrets—and, in short, almost disclosing the wonders of an unseen world. With respect to the first case, Isabella D—— (the details of which we should have given, had our space and the objects of this journal permitted), we think there is sufficient evidence to

prove, that, by means of acting in some extraordinary manner upon the brain and nervous system, either through the imagination or by means of Mesmerism, Mr Dove succeeded in greatly relieving, if not actually curing, a very singular and obstinate case of nervous disease. And this is all that can be said positively on the subject. The disease appears to have been formerly relieved, or removed for a time, by other means; and whether or not the mesmeric cure will be permanent, time alone can tell. Admitting, however, the cure in this case, and admitting also the correctness of all similar cases that have been brought forward (and they are not many), the questions arise, Do the whole amount to sufficient evidence that Mesmerism is a remedial agent deserving the excessive praise bestowed upon it by our author?—and do they warrant the strong expressions—nay, we must add, the abusive calumny—which he throws out, in every chapter of his work, upon the whole medical profession, because they have not, as a class, tested Mesmerism, and acknowledged its merits? To neither of these questions will any well-informed unprejudiced man answer in the affirmative.

By way of argument in favour of the truth of Mesmerism, Mr Lang gives a historical sketch of the opposition made to many discoveries in science and art, which were afterwards found to be true, and acknowledged by the world,—such as the Newtonian philosophy, the circulation of the blood, inoculation, vaccination, gas-light, certain medicines, as Peruvian bark, &c.; and because Mesmerism is, as he says, meeting with the same opposition—which, however, we deny—he seems to wish us to infer that it must be true as well as the others. Now, if such be his aim, this is far from being sound logic. It involves an evident *petitio principii*—a begging of the question. All that can be fairly said is, that Mesmerism may be true although opposed, not that it must be true because opposed. Have there not been numerous fancied discoveries which met with similar opposition, and were soon found to be no discoveries at all? Therefore, according to our author's mode of arguing, Mesmerism, meeting with the same opposition, must like them be false. Witness the history of witchcraft, of the philosopher's stone, and of the *elixir vite*; also the many wonderful discoveries for the cure of diseases and the prolongation of human life; the metallic tractors; the Portland powders for gout; Mrs Stevens' dissolving fluid (for which Parliament gave a grant of L.5000 *upon the recommendation of the medical profession*); iron for the cure of cancer; foxglove, prussic acid, oxygen gas, and a hundred others, for consumption—all adopted by many medi-

cal men, who were of course "*persecuted*" for their support of them—but all now found to be utterly worthless. In short, most men would think that the medical profession deserve blame rather for being too credulous than too sceptical,—for being too eager to embrace new remedies than the contrary. The truth is, that medical men, as a body, have not been backward in testing all proposed new remedies, and that they have uniformly adopted and sanctioned such, as soon as the evidence of their efficacy was sufficient. They are unquestionably the best judges in these matters; the public, even the educated part of it, is not. Now, the evidence in favour of the remedial powers of Mesmerism, even in cases of unusual nervous affections, is not a tithe of what is necessary to establish any remedy; and the cases, reported to be cured or relieved by its means, are not one in a hundred of those given in support of every quack medicine. Many medical men are now testing it; and if its supporters would only state facts without prejudice, keep their eyes open, and refrain from personal abuse and calumny against a body of men who of all classes of society least deserve it, there is no doubt that truth would ultimately prevail, to the advantage of all mankind.

With respect to the case of Isabella D——, we have no hesitation in saying, that the most wonderful part of the narrative regarding this woman—all that relates to the seeing without eyes, and hearing without ears—in short, the whole phenomena of *clairvoyance*—wants that degree of proof which will satisfy any unprejudiced and rational person, who calmly examines the subject. For establishing the truth of these most extraordinary phenomena, there must be proof without the shadow of a shade of suspicion. Effects so contrary to human reason and experience, must be supported by evidence much stronger and more conclusive than that which our author has brought forward. Nor can he find fault with any one for not believing him, since he has quoted, with approval, the following answer of some famous author to Coleridge—"I have seen what I am certain I would not have believed on *your* telling; and, in all reason, therefore, I can neither expect nor wish that you should believe on *mine*."

Now, his readers cannot fail to remark, that the evidence is all on one side—it is wholly of the nature of an *ex parte* statement. No doubt it is admitted that the experiments sometimes failed, although no particulars of these failures are given. But the attentive reader will at once ask, Did it never occur to Mr Lang or Mr Dove, that there could be any deception on the part of the girl? Was this not *possible*? And, if *possible*, then, we maintain, every one is entitled, in such a

case, to presume that deception was practised. We happen to know that this did occur to many who were present at these exhibitions; and on at least two occasions, comprehending many different experiments, every one present, except the mesmeriser himself, was perfectly satisfied that the girl was deceiving. A quotation from page 90 is given below,* from which it will be seen that Isabella attempted, while in the sleep-waking state, to describe some of the internal parts of her own body, which she said she *saw*; and that there was some vague appearance of accuracy in her description. On one of the occasions alluded to, it was suggested that something of this kind should be again tried. A medical gentleman present put the questions, through the mesmeriser, Mr Dove. Not one of the answers even approached correctness. She guessed and guessed again, and stumbled on, but evidently knew nothing whatever of the subject. She was then examined in regard to the appreciation of taste, &c., but in almost every trial she was incorrect. Where she succeeded it was clearly by chance, and nothing else; and all present were convinced she heard every thing that was said in the room, although represented to be insensible to external impressions, except through the medium of the mesmeriser. This, however, was put beyond doubt on another evening. The mesmeriser had formerly caused her arm and hand to move backwards, forwards, upwards, downwards, &c., according to the approach of his own fingers, but without contact, she being closely blindfolded; in short, making her follow, in all respects, his movements, although she could not see them. On this evening one of the gentlemen, speaking aloud, requested Mr Dove to repeat this experiment, at the same time beckoning him not to make any movement. Accordingly, while Mr Dove stood aloof doing nothing whatever, the other gentleman gave the directions aloud, and Isabella, believing, no doubt, that the mesmeric passes were going on, moved her arm upwards and downwards, to the right side and to the left, according as she heard the directions. A gentleman present facetiously remarked—"Well, this is the most extraordinary and convincing fact we have yet witnessed;" which was immediately fol-

* "To-night patient was more than ordinarily clairvoyant. The experiments on her sensations, and her sympathy with the operator, were tried with uniform success. Towards the end of the sitting, on the light being withdrawn, she became very lucid, and on her attention being directed to her own body, she said she saw into it distinctly. Asked if she saw her heart? Replied that she did, and described it as small at the bottom and large at the top, with a division in it which she felt some difficulty in describing. Asked if she saw her brain? Said, with an air of surprise, 'O, yes, I see it!'—'What like is it?'—'I see two pieces, and then another piece behind.' She then described 'a thing going down from it in four pieces,' and strings like a chain all down her back."

lowed by wonderfully increased motions of the arm. It was then proposed to make her describe some of the internal organs of the body; previously to which a medical gentleman explained in her hearing some parts of the brain to the non-professional persons present, purposely describing the right side of that organ incorrectly, and as if exhibiting something very different from the left side. Isabella was then questioned if she saw the brain, and what it was like; when she described it almost exactly as had been previously done *in her hearing*—describing, therefore, what she could not possibly see, because it did not exist, but what she had heard, and supposed to be correct. On these evenings, there might be from ten to twelve persons present, three or four of whom were medical gentlemen; and every one of them, except Mr Dove himself, was convinced the girl heard every thing that was said, and was, in short, attempting to deceive. It is in vain to say, that any prejudice existed in the minds of these gentlemen; they were anxious to elicit truth, and at least two of them were inclined to believe in Mesmerism, having previously visited the same patient. If any prejudice existed in their minds, it was favourable to Mesmerism, not against it.

If the above be not proof of deception, we should be glad to know what would be considered sufficient to prove deceit in any given case. No doubt it may be asserted that all this cannot disprove the previous *positive facts*. It is sufficient to answer, that if deceit existed in one instance, it is possible, nay probable, that it existed in all.

We are not aware whether or not the author of the work before us had a knowledge of what we have now related, regarding the frequent failures and evident deception of Isabella D——. He was not present at either of these exhibitions. It is clear, however, that the case is not complete without these particulars, for no reader is capable of forming a correct opinion regarding it without the evidence on both sides.

These remarks apply to all the other cases related in Chapter V., where Mesmerism was employed to elicit the wonderful phenomena of *clairvoyance*, &c. The author cannot expect his readers to give credit to them, for, even as related, there is in every one of them, and in every particular, a *possibility* of deceit or collusion, or both. In the case of Walter B——, it is stated at p. 156,—“While in the sleep, and with his eyes closely bandaged, he has frequently read pages of books, with the utmost accuracy, and in a better style than he could do in his ordinary waking state.” If this be so, then the eye is no longer the only organ of vision. Is mankind prepared to admit this? Indeed, in the cases of seeing through

stone-walls, and through the boards of books, the narrators of these experiments prove too much; for, if the eye, or any set of nerves which is supposed to be the organ of vision for the time, is not affected by one material object, viz., the wall, or the boards of the book, it is physically impossible that it can be affected by any other material object, viz., the letters of the book, or the object which the patient is said to distinguish on the other side of the wall. It will not do for these gentlemen to say, "We do not pretend to explain *how* these things are done; we only know that they *are done*." For, if they mean to assert, seriously, that pages of books are read *without using the eyes*, but by means of some mental intuition, then this implies nothing less than *omniscience*. Indeed, many of these details, seriously related in this volume, positively go this length.* In justice to Mr Lang, we must add,

* We do not go so far as to think, with the writer of this article, that the alleged power of reading when the eyes are covered is equivalent to omniscience, though bearing some resemblance to that divine attribute. The subject has been discussed at great length and with much ingenuity, by the Rev. Mr Townshend, in his *Facts in Mesmerism*, sect. iii, "On Mesmeric Sensation," to which we beg leave to refer. "We have undoubtedly," says he, "startling things to relate; let them not be related in startling language! Words have much power for good and for evil. On this account I regret that the term 'transposition of the senses' should ever have been applied to mesmeric perception; for it is a manifest inaccuracy. The senses, as I trust I have demonstrated, are never by Mesmerism transposed or removed from their real seat. Still more unfortunate is it, that the early mesmerists should have sinned against precision of language, so far as to talk of their patients seeing *with* the epigastrium, the fingers, &c. To those who might inadvertently repeat such an error, we might suggest, that, when we are made to hear the ticking of a watch, *by means of* its contact with the teeth, it would be a rash conclusion that we hear with our teeth. Such expressions as these remove Mesmerism farther and farther from the safe regions of experience. Our object should be ever to shew that it does not alter sensation, save in certain comparatively unimportant particulars of its mode of conduction. * * * But there still remains a stronghold to those who think that to attack a name is to quash a fact. 'What!' exclaim some persons, 'do you assert that any one can *see* with the eyes shut?' By no means. We will change the term. Why quarrel about a word? We will couch the fact of mesmeric perception in any language that is most agreeable to the objector; we will allow that to have certain perceptions otherwise than by the eye is not properly to *see*. Let us say, then, that it is to *perceive* or *know*; for knowledge, at any rate, is the end and object of all the senses. Knowledge is a general expression of the nature of man. But, be this as it may, the nomenclature of Mesmerism, however faulty, evidently makes no difference whatever in the facts. It is with these we have to deal, and—unless we actually *desire* to quibble—it is these we must alone consider. But the advocates of Mesmerism are placed in a singular dilemma. The world calls out for facts; and, when we offer such as we alone have to offer, hurls them back in our teeth. The mesmeric vision, or *clairvoyance*, especially has been gravely and grandly pronounced to be 'physically and physiologically impossible.' How can we reply to this? Only, I suppose, as Pascal did to some one who asserted that it was *impossible* for God, being so great, to busy himself about our little world,—'Il faut être bien grand d'en juger;—' To decide such a question, one must be great indeed! Or again (for there is no lack of answers), 'Must every thing be impossible, which *our* insufficiency cannot account for? Are there not innumerable mysteries in nature, which accident reveals, or experimental philosophy demon-

that he himself does not profess to be convinced of the reality of "the more extraordinary phenomena, as evolved more especially in the case of Isabella H——." His reason for in-

strates to us every day? And shall we yet presume to limit the powers of the great Author of that very nature?" After all, facts *must* be the ground of decision; and such facts as those detailed with great minuteness by Mr Townshend, and the no less wonderful cases narrated by Dr Caldwell in his *Facts in Mesmerism, and Thoughts on its Causes and Uses*, assuredly claim from the impartial reader, not belief indeed, but suspension of judgment, until he himself shall witness cases where all possibility of perception through the ordinary channels, and likewise all possibility of successful deceit, are excluded. Last summer, we had several opportunities of putting to the test, and witnessing the putting to the test by others, of the power of *clairvoyance* said to be possessed by Isabella H——, whose case is given by Mr Lang; and although she did sometimes tell with surprising accuracy the appearances and other qualities of some of the objects in distant apartments, with whose contents she certainly had no ordinary means of becoming acquainted, still, her failures were far more abundant than her successes, and the vagueness of her language was generally such, as to render it quite as susceptible of an interpretation at variance with the reality, as of that more "satisfactory" one which the interrogators were apt to give it. She seldom named any object; but usually spoke of "a thing like the setting sun," "something with three divisions in it," "a beast that looks wild and runs on hills," "a strange thing, with something in the middle," and so on. In such experiments, the greatest care should be taken to distinguish what is said by the patient, from the interpretations of the experimenter; and no leading questions ought to be put. Indeed, we cannot ascribe scientific value to any report of a case, unless *every question and answer* is set down verbatim, by an accurate writer, on the spot. That a *clairvoyant* should sometimes fail, is no proof that at other times there must have been a similar want of success: Mesmerists do not pretend that the power exists at all times, and in all states of the constitution. "I found," says Mr Townshend, in speaking of one of his patients, "that the sensibility of the sleep-waker might be exhausted by a multiplicity of experiments, or their too rapid repetition. Sometimes, after having named many objects correctly, he would begin to make mistakes, and evidently to guess instead of to perceive. At other moments, he would push impatiently away from him the cards, books, &c., that were presented to him, and exclaim, 'Maintenant je ne puis plus.' Again, when allowed to remain quiet for a while, he would recover his *clairvoyance*, in the same manner that the nervous energy of persons in the normal state, when impaired through over-excitement, returns to its pristine functions after an interval of repose." And a little farther on Mr Townshend proceeds: "Many failures, which have stamped Mesmerism as an imposition, may be attributed, I am convinced, to the action of disturbing causes, or the absence of those circumstances which are requisite to ensure success. That this has not been acknowledged on all hands is, perhaps, as much the fault of mesmerisers themselves as of their opponents. The former, proud of the faculties of their patients, do not like to admit that these faculties are variable and liable to a number of restrictions. They, therefore, fail to forewarn those whom they invite to witness their proceedings, that the whole exhibition may chance to be a failure, and that the *clairvoyant* of to-day may be nothing remarkable to-morrow. What is the consequence of this mistaken disingenuousness? Even they who, if duly advertised of the true state of things, would be the first to acquiesce in the necessities of the case, are revolted by finding a discrepancy between the performance and the promise—the fact and their expectation of the fact. Mesmerisers, then, cannot be too careful in stating all the drawbacks to their success; and, at the same time, every person should, in all fairness, concede to mesmeric experiments the same privilege which is accorded to all others, namely, a precognition of those causes which may render them difficult or impossible to be repeated. At present it may be safely asserted that never was any subject, capable of physical experiment, submitted to such

serting that and some other cases is, that, as the phenomena cannot be entirely withdrawn from public observation, the more prominently they are brought forward the better. "If based on delusion," he continues, "let them be exposed; if on truth, let them go forth, in the hope that the mystery will one day be cleared up. Some individuals will, no doubt, turn aside from an inquiry with which such seeming absurdities are connected, and others will be afforded a pretext to raise the empty laugh of ignorance. This cannot be helped. Mesmerism is true, whatever may be the ultimate decision of mankind regarding the higher states of clairvoyance; and, if we put the latter aside, no intelligent mind, anxious only after truth, can long remain in doubt. Mesmerism is not to be rejected as a whole; its benefits as a branch of the healing art are not to be thrown to the winds, even although it should finally appear that certain persons have allowed too wide a range to their imaginations. We neither admit nor reject the phenomena of the higher states of clairvoyance; but viewing them as a curious topic of enquiry in connection with Mesmerism, we have produced the evidence in the form it has reached our hands."—P. 236. Mr Lang also states that Dr Elliotson "has never had a case of clairvoyance in his own experience; and his opinion, as given to a gentleman who some time ago visited him in London, was to the effect, that, while there is every reason to believe that such a condition does exist, yet the patients, in these cases, appear to be so much infected with a disposition to deceive, that, as yet, it is exceedingly difficult to say when, or upon what occasion, their statements are to be relied on."—P. 32. Mr Dove, in some remarks furnished by him to Mr Lang, but which we have not room to quote entire, maintains, that, although in some of the mesmeric states, there is not only great liability in the patient to self-deception, but likewise "either a deliberate disposition to deceive, or an instinctive manifestation of cunning, and a peculiar desire to astonish us with lying wonders, reminding one of the spirit of deception so vividly manifested in the insane;" yet "such a disposition is certainly *not* characteristic of the lucid or ecstatic vigil, in which, on the contrary, we have a manifestation of the very spirit of truth itself. One general source of perplexity and erroneous infer-

unjust requisitions as that of Mesmerism. It has been expected to give the same results at all times, and under all circumstances. The truth, however, is, that mesmeric sleep-waking does not only present different degrees in different persons, but in the same. The patient may at one time be mesmerised, but not to *clairvoyance*; at another, he may display the most admirable faculties of the mesmeric state."—EDITOR.

ence in regard to mesmeric phenomena," he adds, "I conceive to be the fact, that states, in themselves peculiarly different, and manifesting totally distinct symptoms, are often confounded together under the heterogeneous title of 'THE mesmeric state.'" A remark similar to the last is quoted from Mr Colquhoun, who proceeds to say—"The alleged propensity to deception in somnambulists has been remarked by almost all the elementary writers, especially in the case of females, and it has been generally attributed to their vanity and love of display. I suspect it is owing, in a great measure, to the importunity or mismanagement of the operator, or of those *en rapport* with the patient. I believe it has never been known to occur in the highest state of *clairvoyance*, in which the faculties appear to be quite spiritualized. We cannot, however, be too cautious in putting questions to somnambulists, or taxing their powers too much, as they may themselves be deceived, and deceive others, without intending it."

With respect to "Phreno-Mesmerism," the subject of Chapter VII., we would remark, that if the brain and nervous system, *as a whole*, can be acted upon by mesmeric influence, and certain effects produced, it is not unphilosophical to admit, that *certain portions only* of that system may in like manner be affected, the other portions being in a quiescent state. We would then have some of the mental faculties acting, while the others were not; which is, in fact, what constantly takes place in the natural state, and what the supporters of Phreno-Mesmerism maintain can be produced by the influence which one person has over another. But concerning the cases detailed in this chapter, and indeed all the cases yet made public in which contact was the means employed, we do not think that they afford sufficient unexceptionable evidence to prove the fact. So long as it is considered necessary to *touch* the seat of the organ in the head, so long must the evidence be insufficient to connect the supposed cause with the result; since it is undeniable that the person operated upon, knowing the natural manifestations and signs, can at once exhibit them, and thus deceive the beholders. That this has been done in many of the exhibitions over the country, got up generally for the purpose of making a little money, is extremely probable; and in those cases where no deceit or collusion could exist, the persons being ignorant of Phrenology and of the location of the organs, complete failures have generally been the consequence. Even those successful cases where the persons mesmerised were ignorant of Phrenology, cannot be expected to convince any one who is destitute of the means

of ascertaining that the alleged ignorance really existed ; though such cases, we admit, may serve as legitimate grounds for belief on the part of the experimenters or witnesses who have *certain knowledge* (not easily to be attained) of the entire absence of phrenological information.

Besides, here again the promoters of these extraordinary scenes prove too much. It is supposed and admitted by them, that, during the trance or sleep, all the organs are in a state of inaction, and that, by *touching* one organ, the manifestations of the corresponding mental power are immediately produced, that organ being alone brought into a state of activity, and all the others remaining quiescent. Thus, Dr Engledue says :—“ The finger applied to Imitation produced the most splendid mimicry it is possible to conceive. The words and gestures of friends were copied in the most exact manner. Anecdotes which had been forgotten by all the members of the family, were repeated in a way that brought the circumstances instantaneously to their recollection, notwithstanding many years had elapsed. On one occasion, the manifestation of the faculty was permitted to continue for half an hour, and was then stopped by a wave of the hand over the organ, without contact.”—Pp. 184-5. Here, many faculties besides Imitation were brought into action ; for, in order to produce “ words and gestures,” Language and some of the perceptive faculties would be required ; to relate “ anecdotes that had been forgotten,” Language, Individuality, and Eventuality, would all be necessary. And yet all these faculties are said to have been brought into action by a touch of the seat of the organ of Imitation alone, and the whole put again into a quiescent state by a wave of the hand.*

Again, the manifestations are not always those of the organs touched, but something very different. “ A gentleman present undertook to guide the operator, and, stating aloud that he intended that Veneration should be touched, directed the hand of the operator to the organ of Acquisitiveness. The manifestation was that of Veneration. In the same manner, the patient picked pockets on Veneration being touched, and the manifestation was invariably that *talked of* by the gentleman who directed, and not that of the organ which the operator *touched*.”—P. 206. Would not this be considered proof positive of deception in regard to any ordinary transaction of life ? If not, how is it possible to discover deceit at all ? If, when

* This rousing of several faculties by touching the organ of one, is, we believe, generally explained by saying, that, by the ordinary law of association, when one faculty is excited, those which have usually acted along with it likewise come into play.—EDITOR.

the organ of Veneration was touched, the manifestation had been that of Veneration, would it not have been stated as correct, and a strong proof of the power of the operator, and of the truth of Phreno-Mesmerism? And in like manner, when the manifestation was that of an entirely different mental faculty, should it not be considered a miserable failure? Surely such cases loudly warn us to beware of too easily admitting the reality of apparent confirmations of the doctrines of the phreno-mesmerists!

Dr Elliotson, as our readers are aware, has never succeeded in exciting any cerebral organ by merely willing its activity; while Mr Colquhoun ascribes the whole phenomena to the influence of the operator's will. Mr Lang takes a middle course, and, holding, on the one hand, the will of the operator "to be totally insufficient to account for the varied manifestations of Phreno-Mesmerism," thinks, on the other, that there are cases which prove that the mere will is sometimes efficacious enough to excite the mental faculties. "We have seen," says he, "many curious results flow from the *mentally* expressed wish of the operator, some of which have been recorded in the cases in this volume. In that of Catherine M——, on one occasion when her brother had excited the organ of Love of Approbation, she began to decorate her person, took down her hair, and commenced to comb it. The manifestation stopped the instant the finger was removed. We quietly requested him [the manner ought to have been specified], without again going near the patient, to proceed to a distant part of the room, and there to wish that the manifestation should be resumed. On his doing so, she commenced at the part she broke off, went on with the duties of the toilet, and did not stop until he again came near her. He was then requested also in such a manner that the patient could not be aware of what was about to be done, to put his finger upon Conscientiousness, but firmly to *will* the manifestation of Acquisitiveness. It appeared to some present, that there was a conflict going on for a time in the mind of the patient, but the practical result of the experiment was, that she picked her brother's pockets. He then ceased to wish, keeping his fingers still unmoved upon Conscientiousness, when she threw away the articles of which she had possessed herself, and exhibited strong marks of shame at having been detected in an improper act. We do not bring forward these facts for the purpose of disproving the organology of Phrenology, but merely to shew that the will of the operator—his *wish* unexpressed in ordinary language—has a powerful effect upon the minds of certain patients."—P. 206. After adverting

to the case already quoted above, in which Acquisitiveness, instead of Veneration, gave symptoms of activity (thus illustrating the fact that "patients have been led into erroneous manifestations, through conversations carried on by those around them"), Mr Lang wisely adds—"These hints are thrown out principally for the purpose of inducing caution. In the hands of some operators, organs are multiplying at a wonderfully rapid rate, such as it is difficult to follow; and inquirers would do well to proceed with the utmost care in the investigation. We neither admit nor reject Mesmerism as a proof of the truth of Phrenology. We certainly incline to the opinion that the connection between the two doctrines will ultimately be established; but, meanwhile, we should like to see the question submitted to the test of further careful experiment."—P. 207.

The views of Mr Braid, which are expounded by that gentleman himself in an article inserted in our present Number, are next laid by Mr Lang before his readers, in the form of quotations from Mr Braid's *Neurypnology*. Whether the theory of that gentleman is sufficient to account for all the phenomena of Phreno-Mesmerism, may well be doubted; but, assuredly, his experiments have strengthened our inclination to wait, as Mr Lang intends to do, for additional light, before adopting any decided opinion as to the value of Mesmerism in relation to Phrenology. We heartily applaud the investigations of Mr Braid, and of all other experimenters, and observers of facts; and shall welcome from every quarter, such evidence as may lead to the settlement, in either way, of this much-debated question.

In conclusion, let us return for a little to a subject on which some remarks have already been offered; namely, the aspersions thrown by Mr Lang upon the medical profession. In almost every chapter we find such expressions as these: "The medical profession are a stubborn and stiff-necked generation."—"The majority of the medical profession remaining wilfully blind to the truth."—"Medical and clerical bigotry."—"Medical men were resolved not to be convinced."—"They set themselves in resolute opposition to Mesmerism."—"The pusillanimity of the medical profession."—"The jealousy of the medical men."—"They were resolved that Mesmerism, if possible, should be put down."—"The members of the medical profession are the only individuals who may be said to stand aloof."—"It is really time that the disgraceful and unprincipled opposition offered by medical men to Mesmerism should cease." Now, these expressions, occurring through the whole work, shew an acrimony against the medical profession which

is not easily explained, since the subject and the facts connected with it do not warrant such statements. Whatever may have been the conduct of individual medical men with respect to Mesmerism, we deny that the profession, *as a body*, has scouted it, and refused to inquire into its merits. Sixty years ago, it was subjected to the most patient investigation for several years by many medical men in France, Great Britain, and other countries, and an almost unanimous verdict was given against its powers as a remedial agent. Again, within the last ten years, not a few members of the profession in those countries have returned to it, and are still continuing their investigations, as Mr Lang's own book testifies. But when he chooses to say that the medical men are "the only individuals, who, as a class, refuse to recognise the truths which Mesmerism unfolds," he simply says what is not true. No class of society whatever has yet expressed its belief in Mesmerism. Particular individuals from every class may be found who have decided, some in favour of, and others against, the truth of Mesmerism; but to talk of any *class* of mankind whatever believing such doctrines, is pure absurdity. And yet, we are perhaps wrong after all. One class probably has been attracted by the mysterious exhibitions, and may have been converted. If so, it must be that class, the members of which are least able to judge between true and false evidence—the ignorant and uneducated, who are ready to believe every thing that is wonderful and mysterious, who attach peculiar interest and importance to all that is paradoxical, and the great majority of whom still believe in the existence, on earth, of ghosts and witches. If any *class* of men has yet expressed its firm conviction of the truth of Mesmerism, it must be this class; and to its assent our author is exceedingly welcome.

Again, Mr Lang talks freely enough of medical prejudice, and jealousy, and bigotry. But is the prejudice all on one side? Are those men perfectly free from prejudice, who differ from nearly the whole mass of mankind, and believe in things, many of them contrary to reason, subversive of all experience, and in opposition to the plainest dictates of common sense? One might believe it possible that their opinions will turn out correct; but to believe them free from all prejudice, is quite out of the question. On the occasions when Isabella D— failed completely in her trials, as we have already shewn, the only prejudiced person in the room appeared to be the mesmeriser himself: he only "would not be convinced;" he only would not believe the evidence of his own senses. He came to the experiments with a *prejudice in favour of Mes-*

merism, and he would not believe truth when it was displayed to him.

Mr Lang also speaks of persecution so often, that one would almost think some of the mesmerists had been hanged or beheaded—banished or suffered imprisonment at the very least. But we observe it is always the medical men who persecute. Now, let any one read over his fourth chapter, and then say, if it does not shew strong signs that he would be a persecutor if he could. Alas for the poor doctors, if he were to be their judge! But then, Dr Elliotson has surely been persecuted by his medical brethren for espousing Mesmerism! If, as our author states, the Doctor lost a great part of his practice in London, is the medical profession to blame for this? It surely shews that the public at large had something to do with the persecution, when they withdrew their patronage from him. The truth probably is, that even Mesmerism was only indirectly the cause of the diminution in his practice, if such really took place. From paying so much attention to Phrenology and Mesmerism, he could not, it may have been inferred, attend closely to his professional duties. Practice would soon be found to decline by any medical man who should direct his attention almost exclusively to one subject, whatever that subject might happen to be.

We were not a little amused on reading Mr Lang's defence of the *genuineness* of the manifestations given by the young girls O'Key, the first mesmeric patients Dr Elliotson exhibited in London several years ago. It seems, some one had the audacity to state that these girls were impostors; a fact, we may remark, proved to demonstration—if ever there was any individual fact proved in this world—and known to have been so by every impartial man acquainted with the particulars.* But our champion of Mesmerism and of Dr Elliotson says no; and gives proof of it. "Listen," he says, "to what Dr Elliotson states in his *Numerous Cases*, published in 1843;" and then follows a quotation from the Doctor, finishing with—"Every thing stated or ever printed to their disadvantage, was an absolute falsehood; I repeat these words emphatically, an absolute falsehood." Verily Mr Lang is no lawyer, if he supposes that Dr Elliotson will be taken by the public as a witness in his own cause. Did any one ever expect, after the scenes exhibited, and the discoveries detailed in the *Lancet* respecting these girls, that Dr E. would ever admit the imposition, and confess that he was himself deceived? Assuredly none. Our author evidently knows nothing of the circumstances, except

* See various articles under the title "Animal Magnetism," in the *Lancet* for 1837-8, vol. ii.

through the medium of Dr E. himself, otherwise he would be aware that the Doctor's evidence on this subject is not worth a straw. That Dr E. himself is firmly convinced of the sincerity of the girls, is a circumstance of no weight with those who think themselves as able to estimate the value of evidence as he; and who, at all events, are more likely to form an unbiassed judgment on the question.

V. *The British Medical Journals.*

1. *The Medico-Chirurgical Review*, No. LXXVI. (April 1843), contains a long analysis of Mr Guthrie's work "On Injuries of the Head affecting the Brain." One result of his experience in cases of loss of considerable portions of the cerebrum, is stated by Mr Guthrie to be, that brain is more rarely lost from the forepart of the head without danger to life, than from the middle part; and that a fracture of the skull, and even the lodgement of a foreign body and a portion of the bone in the brain, may be sometimes borne without any great inconvenience in the back part. With respect to concussion, he thinks that the exact condition or lesion of the brain is far from being very clear; "whilst he agrees," says the reviewer, "as all rational thinkers must, with Sir B. Brodie, that 'there may be changes and alterations of structure in the brain, which our senses are incapable of detecting.'"—P. 294. According to Mr Guthrie, in children the cranium does not break so readily as in adults, the brain bears pressure better, and the level of the bone is gradually restored. "Avellan says that a girl of fourteen had a depression of the right parietal bone from a blow, which gave rise to mental derangement, amounting almost to imbecility, for three months; at the end of which time the depressed bone gradually resumed its level, and the girl completely recovered. In Quesnay, *Mémoires de l'Académie de Chirurgie de Paris*, tome i." (P. 309). "When a person," says Mr Guthrie, "has received a serious blow on the head, which has given rise to an exfoliation of the bone, or to a very slight depression of the skull, he is rarely restored to his previous healthy and natural state. . . . In all these cases, and I could relate many, of persons of education, they can bear no great exertion of any kind. They fall down under exposure to heat. They are easily inebriated, rendered furious by a small quantity of liquor, and often become stupefied, comatose, or even die suddenly. In addition to these evils, which may be avoided by care, many are subjected to fits, which are appa-

rently epileptic ; and others suffer from such intolerable pain in the part injured, as well as in the head generally, as to be rendered miserable and desirous of seeking relief at any risk. These injuries are often accompanied during their progress by mental defects which time does not always remove. The memory is very often much impaired. It is frequently defective as to things as well as to persons. The sight of one or both eyes may be impaired, or even lost. Ptosis, or a falling of the upper lid, is not an uncommon although a more curable defect. Speech is not only difficult, but the power of uttering certain words is often lost ; a language is occasionally for a time forgotten, and a sort of conventional one has even been adopted, in the manner mentioned by Sir A. Cooper, the Baron Larrey, Sir B. Brodie, and in the case related by Dr Hennen, which was under my own observation. The more serious evils which befall these unfortunate sufferers are aberrations of mind, rendering some degree of restraint necessary, or a state of fatuity, which is not less distressing. These intellectual defects are often accompanied by various states of lameness and debility, from which there is but little hope of recovery.”—P. 324.

In a notice of Sir Alexander Crichton’s “*Commentaries on some Doctrines of a dangerous tendency in Medicine*,” it is mentioned (p. 398) that he repudiates the doctrine of insanity being a disease of the mind, if by mind we mean the soul, or “the immaterial agent which directs our reason or moral feelings.” Sir Alexander, says the reviewer, “justly considers the anatomical researches of Foville and Delaye as the very best that have ever been made in respect to the condition of the brain in insanity. These gentlemen always took care to have a sound brain on the table while dissecting the brain of a maniac. In acute cases of insanity, the cineritious part of the brain was discovered by these gentlemen to be preternaturally red and congested. In early stages of acute insanity, no adhesions of the membranes to the cortical substance were discovered ; but in chronic cases these adhesions were very common.” Dr Carpenter, in his “*Principles of Human Physiology*,” writes as follows : “From the great vascularity of the grey matter, and the occurrence of a structure of corresponding character around the origins of the afferent nerves, it is evident that its functions must be different from those of the fibrous structure ; and, whilst there is no evidence that the latter serves any different purpose than that of a mere conductor, there seems good reason to believe that all the active operations, of which the nervous system is the instrument, originate in the former.”

A very remarkable case, bearing upon this subject, is men-

tioned by Dr Brigham in his recently published "Inquiry concerning the Functions and Diseases of the Brain;" we here extract it from that work, p. 62. It is the case of an idiot, who died during the clinical course of M. Esquirol, in 1823. "The right side of the body was extremely atrophied. The limbs of this side were reduced almost to skin and bone, and not capable of the least motion. They were also considerably shorter than the limbs of the opposite side, which were well developed, and capable of motion. In short, the left side of the body was in a natural and healthy condition, while the right was paralytic, emaciated, and of diminutive length. The cause of this singular appearance was sought for after death with great diligence, and the autopsy was witnessed by a large number. No disease was found on examining the body, except that of the brain. The head was quite small, though the bones of the cranium exhibited nothing remarkable. The hemispheres of the brain presented no appearance of convolutions. The cineritious substance was wanting on both sides. But the condition of the medullary part of the brain was most interesting. On the right side it was natural, as the disease appeared to have extended only to the surface of the right hemisphere; but in the left hemisphere it was almost entirely wanting, and its place filled by a semi-transparent fluid."* Dr Brigham considers this case fully to establish the opinion, that the grey matter is the seat of the mental faculties, and the medullary that of the motive powers. "It is evident," he adds, "from the condition of the brain, that the paralysis and atrophy of the right side of the body, was owing to the absence of the medullary portion of the left side of the brain, and that motion cannot be dependent on the cineritious portion of the convolutions, for this was wanting on both sides. The absence of the cineritious substance may, however, account for the idiocy. I do not know of a case deserving of more consideration than this, not merely as relates to the confirmation of the views advanced respecting the functions of the cineritious and medullary parts of the brain, but as shewing that the healthy and full development of the muscles, limbs, and other parts of the body, is dependent upon the healthy condition of the nervous system."

It is natural to ask, how this doctrine, that the mental powers are the function of the grey matter exclusively, will, if confirmed by farther observation, affect Phrenology. At present it is impossible to answer the question. Of this, however, we may rest assured, that whatever may be ultimately determined

* "Dic. Med. et Chir. Prat. vol. i."

on the point, the fact will stand unshaken, that certain very recognisable forms of the brain are accompanied by certain well-defined mental qualities. There is no fear of any one truth being found to clash with another.

On page 432 of the same Number, the following quotation is made from Dr Matthew Truman's work on "Food and its Influence on Health and Disease :"—" Many persons consider that the human race has degenerated since the variety of our food has been so much increased. . . . One trivial circumstance may be mentioned to prove the incorrectness of such an opinion. At the time of the tournament lately given by the Earl of Eglintoun at his seat in Scotland, when the old armour of so many departed Templars was brought out for the use of the knights who were to figure at that entertainment, many periodical publications teemed with paragraphs asserting that a great deal of padding and filling-up was necessary, to enable our young but degenerate aristocracy (as they were called), to keep on the corselets, arm-pieces, and sheaves, on account of the gigantic stature of the persons for whom they had originally been made. Mr Pratt of Bond Street, who provided a large portion of this armour, states the very reverse to have been the case ; that the reason, in almost every instance, the old armour had to be altered was, that it was too small instead of being too large. Most of the cuirasses and the coverings for the limbs were found to be so tight across the chest and round the arms and legs, that they could not be worn ; and scarcely any of the helmets could be got on before they were enlarged ; most satisfactorily proving that the higher orders of young men, in this country, possess a more perfect corporeal development than those of a similar class had six or seven hundred years ago."

The reviewer of Dr Carpenter's "Principles of General and Comparative Physiology," after quoting, with full and warm concurrence, the opinion of that writer, that " no one, who has had sufficient opportunities of observation, can doubt that the intellectual faculties, which have been developed by cultivation, are generally transmitted to the offspring in an improved state ; so that the descendant of a line of educated ancestors will probably have a much higher capacity for instruction than the child that springs from an illiterate race,"—adds the exclamation, " How wide a field for discussion and for action does this consideration present ! How gravely do the spread of education and the *science* of intermarriage address themselves to the attention of the philanthropist and the legislator ! The fruits of care and culture are not confined to the well-being of a single individual : they bear within them the blessings of in-

crease ; and multiply tenfold with each succeeding generation."

According to Dr Robert Hull, a somewhat eccentric writer, whose "Essays on Determination of Blood to the Head" are noticed at page 466, "the marvel is, that everybody who has *time* to think, does not run mad ! In this unfathomable universe, whether viewed with the eye astronomical or microscopic, the awful so predominates, that *not to be mad* seems a special proof of the grace of God ; or of a natural hebetude of soul." To this the doctor adds the "dogmata of the Calvinistic school," which inculcates that a *few* are selected, "for no virtues, but to shew the irresistibility of their Maker," and the rest are to be damned, whether virtuous or wicked, for the same purpose of shewing the absolute power of the Deity ! "There is no doubt," adds the reviewer, "that these gloomy, not to say impious, tenets drive many weak minds mad every day. It is only astonishing that people of any intellect or reflection could entertain such degrading ideas of the Omniscient, the Omnipotent Author of our existence and Governor of the universe !"

No. LXXVII. of this Review (July 1843), we already noticed to some extent in our last Number, so that little remains to be gleaned from it at present. In an excellent article on the Treatment of Children, it is mentioned as having been very generally observed with respect to children recovering from *cholera infantum*, that they "crave much for salted meat and fish ; and the most experienced physicians, including Drs Rush, Parrish, and Hosack, have remarked that this instinct may be indulged not only with perfect safety, but with positive advantage to the health."—P. 93. Here is an additional example of that discriminating power, which, as we noticed in a former paper (vol. x. p. 262.), Alimentiveness seems frequently to possess when the body is in a state of disease.

Our only other extract from the July No. of the *Medico-Chirurgical Review*, shall be a lively sally against the lawyers for presuming to despise medical wisdom as a light to guide them in cases of insanity :—

"It is of paramount importance at the present moment to disseminate correct notions on the nature of insanity. The Judges are deliberating at the summons of the Chancellor, who, backed by an ex-Chancellor, himself a representative of panto-mania, seems far from disinclined to render the law of insanity stringent, and to hold all cheap but the judicial *ipse dixit*. That a set of men, whether clothed in red or black, who practically know nothing of the malady they pronounce upon, should settle, *ex cathedra*, what are its symptoms and its nature, is certainly absurd enough. That these same men should affect

to look down on the opinions of those who make its investigation their business, and who, in all that relates to an acquaintance with the bodily and mental constitution, must be immeasurably their superiors, goes even beyond absurdity. But when the sum of their ignorance is to constitute the law, and become the Procrustian bed into which the wretched madman is in future to be forced, it is the duty of the humane and the enlightened, to oppose to the brutality of political rancour, and the assumptions of incompetent authority, the mild and steady dictates of science and of truth. Our course is clear. It is for us to state the facts as they are—to shew when and where, and in what degree, the mental powers are impaired—to disabuse the world of its vague notions of the *mind*—to point out the connection between mental and corporeal ailments—to explain the dependence of the former on the latter—and to establish the axiom that, as the brain is the instrument of the intellectual acts, it is to its alterations that we must look for the causes and the explanation of their aberrations. To whatever result the pursuit of truth may lead, it is immaterial to inquire. *Fiat justitia, ruat cælum.* That pursuit is the noblest accorded by Heaven to man, and it is a sort of blasphemy on Providence to pretend that the discovery of truth can be baneful. Society must be rotten when its parts are cemented by falsehood, and upheld by error. We trust that our brethren will not be intimidated by the blustering of any party, nor sink from the fearless expression of what they think and know, in the Courts of Justice. A bold front and a calm disregard of bigoted or of interested clamour befits those upon whose evidence the life of the unfortunate maniac hangs. And whatever opposition may be made to the reception of truth, we may rest in the perfect confidence of its final triumph.”—P. 160.

In No. LXXVIII. (October 1843), our readers will find (p. 291), an interesting abstract of a paper on “The Temperaments considered in their relation to Health, by M. Royer-Collard,” published in the tenth volume of the “*Mémoires de l’Académie Royale de la Médecine.*” In the opinion of that writer, the ordinary descriptions of the temperaments are founded upon mere conjecture. He thinks it is to the composition of the blood that we are to look, not for the *cause*, but for the *characters* of the temperaments. He declines offering any arrangement or nomenclature of the temperaments, satisfied with having pointed out what he considers to be erroneous ideas prevailing upon the subject, and shewn the mode in which future investigation should be conducted.

From an article on Dr Francis Willis's "Treatise on Mental Derangement" (p. 472), it appears that the Doctor is firmly convinced, not only of the efficacy, but also of the necessity, of the restraint of insane persons. Notwithstanding the outcry raised against restraint, and more particularly against "those beneficial auxiliaries, the waistcoat, the chair, and the belt and gloves," he does not shrink from upholding them, believing it is the abuse of these, and not the use, which ought to be condemned. With regard to the introduction of a system of religious instruction and discipline into lunatic asylums, the Doctor is of opinion that it is a strange anomaly that it should be deemed useful to introduce into an asylum, for the daily attention of insane persons, a subject which is itself a very common cause of insanity. "However desirable it may be, either for the sake of example or for the sake of preserving an orderly behaviour among the insane, that they should attend Divine worship, I am of opinion that the system of religious discipline should cease with that attendance. I think that all attempts at religious instruction are not only useless, but often injurious; and this opinion is fully corroborated by experiments which have been made on the subject." Of course, much will depend on the character of what is given under the very comprehensive title of religious instruction.

2. *The Lancet.*

At a meeting of the Governors of Bethlem Hospital in June last, the report of a special committee, recommending various alterations and ameliorations in the treatment of the patients, was taken into consideration. Much debate, says the *Morning Post*, ensued on the proposition of the committee, "That a billiard-table should be hired in order to promote the exercise and amusement of the inmates." Mr Anderton expressed his *surprise* at such a recommendation, because, first of all, lunatics could not play at games, and in the next place for as much as that a person who was *capable* of playing at games of chance was not fit to remain in a lunatic asylum; and if it were intended to introduce all those comforts and luxuries the patients would never wish to leave! He thought that billiards would lead to excitement, and, by promoting a system of gambling, have an injurious effect, and therefore moved that the paragraph recommending the billiard-tables be expunged from the report. Mr T. B. Herring told Mr Anderton that cards, draughts, and chess, had been the amusement of the patients in Bethlem Hospital for these twenty years. Mr Alderman Farebrother added that he, too, thought the in-

introduction of a billiard-table calculated to *encourage gambling*, and would so taint the patients, that when they left the hospital they might have recourse to such practices, which would probably lead them to ruin. For these reasons, and there being *no recommendation from the physicians* before the court, he seconded Mr Anderton's motion. "Very admirably," says the *Lancet* of 8th July, "did Mr Laurie jun. answer these ill-informed gentlemen. He stated to them the fact, that the recommendation of the committee had been unanimously agreed to at the largest committee at which he had ever been present; and in reply to Mr Anderton's remarks that insane patients could not play at games of chance, he begged to say that cards were originally introduced for an insane king. He thought that refusing to allow amusements in the hospital, for fear of encouraging dissipated habits when the patients went out, was about as rational as it would be to refuse administering wine and spirits to sick persons, lest it should encourage them to resort to dram-drinking on their recovery. He considered a billiard-table would be of great service, particularly in the winter time, or in bad weather, when the inmates *could not go into the grounds*, or be induced to take *any other exercise*; and although the physicians had not appended their recommendation to the report, he had received a letter from Dr Monro, the senior physician, stating that there could be *no objection* to the introduction of billiards and bagatelle. The learned gentleman quoted several lunatic asylums where, amusements and occupation being carried out to the greatest extent, cures were effected *in far greater proportion than at Bethlem*. He called upon the governors to avail themselves of the improvements adopted in other asylums, and place the Royal Hospital where it ought to be, in the front rank of all, instead of dragging in the rear of pauper lunatic asylums. Dr Webster, the Earl of Shaftesbury, and the Common Sergeant, supported the views of Mr Laurie; the Common Sergeant honourably and sensibly stating that he was 'at first disposed to treat the proposition as most absurd, but that subsequent inquiry, and the rational arguments adduced that day, had altered his impressions.' The report in the newspaper adds, that, after some farther discussion, the President put the question, and on a division the numbers were:—For introducing billiards, &c. 20; against it, 30; it was consequently lost by a majority of 10. Yet, after another long discussion, a proposition for purchasing a pianoforte, and other musical instruments, for the use of the patients, was carried, the numbers being 25 for, and 23 against it. To parody the Duke of Wellington's hint, we say to the thirty

governors, 'Pray, gentlemen, place yourselves in the category of men who do not meddle with questions of which they are wholly ignorant.' We could place on the table of the governors at least fifty pamphlets and reports containing accounts of amusements introduced into lunatic asylums, in every instance with great advantage to the inmates. But Mr Laurie has already found the valuable evidence of experience useless in the court."

Dr J. R. Smyth, in an article on rickets, published in the *Lancet* of 22d July, says—"The development of the mental faculties of rickety children is irregular, and a thing of uncertainty. Sometimes we find precocity of intellect and premature quickness of the power of observation and remark; at other times, just the reverse obtains—the intellectual faculties of the rickety child are plunged in abstraction and stupor. A great many rickety children are, in fact, more stupid than intelligent, and they all appear to be rather stunted and weak in their feelings and affections." The same Number contains (p. 598) a somewhat jocular notice of one or two meetings of the Phrenological Society of Paris. We extract the concluding passage:—"At a late meeting of the society, M. Fossati opined that his phrenological collaborateurs would do well not to pay too rigid attention to the development of the heads of criminals, with the view of finding organizations adequate to impel to the commission of crime; for that crimes were as much, if not more, the results of defective education and other circumstances, as of congenital organization. Phrenologists should go where the force of external circumstances did not, or ought not, to operate so strongly, namely, they should *examine the heads of the upper classes*, and see how far *their* acts and their tendencies coincided.

'Oh, Mrs Fry, why go to Newgate? why
Preach to poor rogues? and wherefore not begin
With Carlton, and with other houses?'—*Don Juan*."

There is a considerable degree of truth in this opinion of Dr Fossati. It is quite unphilosophical to look for an uncommonly bad head in every criminal, and not less so to be astounded by meeting an indifferent one upon the shoulders of a person who, with no strong temptations to crime, has been prudent enough to refrain from breaking the law.

3. *The Medical Times.*

No. 197 (1st July 1843, p. 218) contains a good editorial article on the answers given by the English judges to the questions on the law of insanity in criminal cases, laid before

them by the House of Lords.* “To us,” says the writer, “it appears that the criminal’s knowledge of his act being against law, so far from increasing his guilt (if there be any), establishes its diminution. It proves a greater amount of mental alienation, for it implies a mind not under the regulation of the ordinary rules of prudence and common sense. By it the

* QUESTION I. What is the law respecting alleged crimes committed by persons afflicted with insane delusion, in respect of one or more particular subjects or persons: as for instance, where, at the time of the commission of the alleged crime, the accused knew he was acting contrary to law, but did the act complained of with the view, under the influence of some insane delusion, of redressing or avenging some supposed grievance or injury, or of producing some supposed public benefit?

ANSWER. The opinion of the judges was, that notwithstanding the party committed a wrong act, while labouring under the idea that he was redressing a supposed grievance or injury, or under the impression of obtaining some public or private benefit, he was liable to punishment.

QUEST. II. What are the proper questions to be submitted to the jury, when a person alleged to be afflicted with insane delusion, respecting one or more particular subjects or persons, is charged with the commission of a crime, murder, for example, and insanity is set up as a defence?

ANS. The jury ought in all cases to be told that every man should be considered of sane mind until the contrary were clearly proved in evidence. That before a plea of insanity should be allowed, undoubted evidence ought to be adduced that the accused was of diseased mind, and that at the time he committed the act he was not conscious of right or wrong. This opinion related to every case in which a party was charged with an illegal act, and a plea of insanity was set up. Every person was supposed to know what the law was, and therefore nothing could justify a wrong act, except it was clearly proved that the party did not know right from wrong. If that was not satisfactorily proved, the accused was liable to punishment; and it was the duty of the judge so to tell the jury when summing up the evidence, accompanied by those remarks and observations which the nature and peculiarities of each case might suggest and require.

QUEST. III. In what terms ought the question to be left to the jury as to the prisoner’s state of mind at the time when the act was committed?

No answer was returned to this question.

QUEST. IV. If a person, under an insane delusion as to existing facts, commits an offence in consequence thereof, is he thereby excused?

ANS. If the delusion were only partial, the party accused was equally liable with a person of sane mind. If the accused killed another in self-defence, he would be entitled to an acquittal, but if the crime were committed for any supposed injury, he would then be liable to the punishment awarded by the laws to his crime.

QUEST. V. Can a medical man, conversant with the disease of insanity, who never saw the prisoner previously to the trial, but who was present during the whole trial and the examination of all the witnesses, be asked his opinion as to the state of the prisoner’s mind at the time of the commission of the alleged crime, or his opinion whether the prisoner was conscious, at the time of doing the act, that he was acting contrary to law? or whether he was labouring under any, and what delusion at the time?

ANS. The question could not be put in the precise form stated above, for by doing so it would be assumed that the facts had been proved. When the facts were proved and admitted, then the question, as one of science, would be generally put to a witness under the circumstances stated in the interrogatory.

Mr Justice Maule agreed with the judges in respect to the answers returned to all the questions excepting the last; from this he entirely dissented. In his opinion, such questions might be at once put to medical men, without reference to the facts proved; and he considered that this had been done, and the legality of the practice thereby confirmed, on the trial of M’Naughten.

homicide exhibits himself as uncontrolled by the strongest principle in the reasoning man's nature—self-preservation. For an object which is really worth nothing to him—and which derives all its importance from an imagination essentially deranged—he, knowingly and deliberately, sacrifices that boon to which the sane man instinctively clings the most tenaciously. Yet our law, according to the fourteen judges, affirms that this stronger proof of ungovernable madness, if absent, shall take the lunatic asylum—if present, shall hasten him to the scaffold!" The writer adverts also to that form of insanity of which so many cases are on record, homicidal monomania; in which the unhappy patients, "without mental delusion and free of hallucination, with intellectual powers and bodily health apparently unimpaired, exhibit a morbid perversion of the moral feelings and propensities, and an invincible instinct, which hurries them into moral wrong, despite the warnings of prudence, the teachings of conscience, the wrestlings of the understanding, or the strugglings of the will. . . . To send such men as these to the scaffold is not to serve, but to insult, justice."

In the Number for 22d July, p. 266, the editor discusses, in a very liberal and rational spirit, the question, What is the duty of medical men to Mesmerism? While bound to disbelieve marvellous assertions of which no sufficient evidence has been shewn them; on the other hand, says he, they *are* not, and, as philosophers, and searchers after the true, *cannot* be justified in treating Mesmerism with *unenquiring* credulity. "The time is past, and for ever, when the believer in any dogma, much less one which is thought to be founded on actual experiments, will renounce it on the derisive laugh, or the unexamining denial of any man. Your *ipse dixit* authorities were never held in less awe, or more suspicion, than in the present day. If the enthusiastic assertor of improved propositions receive a sigh from our pity, the unreasoning and bigoted opposer of the probable or the proved, extorts a smile from our contempt. Incredulity is not necessarily wisdom. Like every other state of mind, its worth depends on its justness in relation to the circumstances on which it is exercised. It is as likely to be in error as its extreme: with some it is more likely. . . . As medical men, our scepticism towards the new and the marvellous is greater, perhaps, than that of any other class. Our education has made so many wonders to the multitude plain things to us, that the inexplicable, whether new or old, becomes suspicious. There is no process in nature, however extraordinary, which is not satisfactorily accounted for to us by our professors. Nothing exists for which we have not a definite law and a definite action—and if we cannot explain terms by things, we can always explain, or try to explain,

things by terms—a marvellously agreeable mode of hiding from ourselves and others our ignorance. We are, too, a body forced into an acquaintance with not the brightest side of humanity, and are taught distrust by experience. All of us have heard, most had personal experience, of ingenious frauds. To be the dupe of imposture is an imputation on our professional skill; and the precocious sharpness and invulnerability to deception which we took credit for during the last months of our first session, are not allowed to forsake us when we can exercise them, with such increase to our credit, in a commencing or established practice. With this strong predisposition to incredulity, it is not wonderful that many of us make our readily formed judgments the arbiters of what is probable or possible, without any great care as to the asserted facts—or nice abstract reasonings as to the soundness of our premises. It is new, it is extraordinary, it is unknown, or dissimilar to *our* experience : *ergo*, it is false. Now what makes this procedure the more captivating is, that nine times out of ten—ay, ninety-nine times in the hundred—it will be correct. We know that nine-tenths of the patents which cost so much money to secure, are left unworked; and of the schemers who surround and tease us with improvements, how few, very few, shew they are not wasteful enthusiasts. But there is an exception; the one-hundredth may be more than a dream. How many pitied and scorned the man who resolved to float through the clouds in that frail handiwork of his—the balloon! How many laughed at him who launched the first steam-boat on the American waters! How many smiled at the idea of nature, through the agency of light, flinging off the most astounding likenesses in seconds! How few disbelieved Humphry Davy when he, who thought the discovery of the philosophers' stone not impossible, proved that gas, instead of peacefully lighting London, must destroy it by combustion! or Lardner, when he shewed the impossibility of doing that which afterwards so availed him—crossing the Atlantic in a steamer! or that careful inventor who secured a patent to prevent the friction which would otherwise make railroad travelling impossible! Beyond the plainly incongruous, and what is evidently self-contradictory, we know not what is impossible. . . . To our medical brethren we say, then, on Mesmerism, as on every novelty in science, let us doubt till we know—let us nurse suspense of judgment till inquiry remove it. The philosopher, faithful to science, like the true believer in religion, 'tries all things, and holds fast by that which is true.' It is only by acting thus that medical men can be worthy of their profession, or maintain its respect in the eyes of discerning or unprejudiced society,—or that any generation of us can pass into the tomb without being eternally stained like those who,

preceding us, witnessed and opposed the innovations of a Harvey, a Jenner, a Hunter, and so many other 'marvel-mongers.' " Again, the reviewer of Mr Lang's book on Mesmerism, in the Number for 23d September, says, "As a body, the profession is justified in the position they maintain with respect to this doctrine, provided their disbelief shut not out inquiry. Credulity here is infinitely more dangerous to truth than philosophic scepticism. Knowing this, we cannot blame the profession for whatever caution they may manifest on the subject; but, we say, let those who have tastes and talents for the investigation persevere, and when the proper time arrives, the profession will shew that it has neither been insensible to all that is passing around it, nor forgetful of the interests of the public."

The Paris correspondent of the *Medical Times*, writing on 3d August, says,—“M. Rivail has read a memoir to the Phrenological Society, in which he concludes, that Phrenology ought to be divided into three branches,—1st, *organologia cerebrealis*—a branch which treats of the different parts of the brain affected to each faculty; 2nd, *facultologia*, which treats of the different faculties, and their union with each other; 3d, *cranioscopia*, which treats of the influence the brain exercises on the form of the skull, and of the external signs by which the development of these organs may be appreciated.”—P. 315. In a previous Number (29th July), p. 283, the same correspondent gives some particulars respecting the number of insane persons in France and Belgium, and the proportion of cases attributed to moral and physical causes. The only other article in the *Medical Times* that we think it necessary to refer to, is a letter from Dr Thomas Smethurst of Ramsgate, published on 16th December, under the title of “Mesmerism Unmasked.” Dr S. there exposes what appears to have been an attempt to convince the spectators, by a juggling trick, that a boy, whose face was covered with a mask, could receive, through, or in spite of, its opaque substance, impressions enabling him to read, play at dominoes, and so forth. Whether the operator, Mr W. H. Weekes, a surgeon of Sandwich, will acquiesce in the accuracy of Dr Smethurst's narrative, remains to be seen.

4. *The Edinburgh Medical and Surgical Journal.*

“This work seldom contains any thing deserving attention peculiarly in a phrenological point of view. In the Number for January 1843, there is “An Account of Several Cases of Spectral Illusions, with Observations on the Phenomena, and on the states of bodily Indisposition in which they occur; by Robert Paterson, M.D., physician to the Leith Dispensary.”

The author's materials are not very well put together ; but his cases are interesting and instructive. He concurs with Hibbert and Brewster in the opinion, that "the mind's eye" is actually the body's eye, and that the retina is the common tablet on which both the images of external objects and those coined by the brain are painted ; quoting Shakspeare's phrase as profoundly philosophical, and literally true. We contested this theory in a former article (vol. viii. p. 545), and need not repeat what was there urged against it. Suffice it to remark, that did the picture exist on the retina, the apparition would partake of every motion of the eye—which seldom, if ever, happens. There is no apparent necessity for first creating a spectre in the brain, next sending it out through the optic nerve to the retina, and lastly, returning it to the brain in order to be perceived. Surely the brain which imagines a spectre may be allowed the power of *immediately* perceiving what itself has created ! The blind occasionally see apparitions, as is proved by Dr Macnish in his *Philosophy of Sleep*, by the case of a patient of his own ; and if any blind ghost-seer, or even dreamer, could be found, in whom no retina existed, the doctrine we oppose must be at once abandoned by its supporters. We have made inquiries in the Edinburgh Asylum for the Blind, but have not discovered among the inmates any case of entire absence of the eyeballs. Some of those whom we questioned, stated, that they occasionally dreamed of *seeing* external objects. But it appeared that such dreams visit only those who have enjoyed vision at a period of life within their recollection. Persons blind from infancy said they dreamed only of having such sensations as they have while awake. We could not discover that any blind person in the Asylum had seen apparitions. If any of our readers can throw light on the subject, we beg to be favoured with a communication.

VI. Our Library Table.

1. *The Zoist*, No. III., for October 1843.—Upwards of fifty pages of this Number are occupied by an account of the proceedings of the meeting of the Phrenological Association at London, in July last. The Report of the Committee, Dr Elliotson's Introductory Address, and apparently one or two of the other papers read, are published entire ; while, of the remainder, abstracts only are inserted. For a sketch of these proceedings, we refer to our section of "Intelligence." Article II. is a letter from Mr Arthur Trevelyan, expressing his regret that he had, without sufficient consideration, appended his signature to the Declaration of certain members of the

Association, published in our 74th Number (vol. xvi., p. 94). Article III. contains the proceedings of the London Phrenological Society, embracing (1.) a paper by Mr H. G. Atkinson, on the head and character of the late Lord Eldon; (2.) report of an Address by Mr Hudson Lowe "On the subject of the connexion of the views entertained by phrenologists with regard to what have been termed the reflective organs, and those of writers on psychology, or the philosophy of mind, with regard to the processes of suggestion and association;" (3.) Notice respecting a cast of a head submitted to the assembled members for an opinion, with the result; and (4.) an Address by Dr Elliotson on the influence of the feelings upon the intellect. In the first paper (which is illustrated by two lithographed views—one of a cast of Lord Eldon's head, and the other of the head of the philanthropic Basil Montague, as a contrast), Mr Atkinson estimates his Lordship's moral qualities, except Veneration, very moderately. Mr Lowe's report of his Address is accompanied by some uncourteously expressed editorial comments. Respecting the cast submitted to one of the meetings, the *Zoist* publishes the development pronounced by several of the members, and the inferences drawn therefrom. Dr Elliotson's Address concludes as follows:—"Pains enough are taken by teachers to inculcate opinions; but no pains to teach the solemn duty of examining into the grounds of all opinions,—of holding no opinion without good reason. A great business not yet accomplished is to teach the million to think: to ask themselves the reason of all they feel assured of: to regard it as low morality to hold opinions from mere imitation and habit, and not to have courage to confess ignorance rather than hold opinions without strict examination." The Society adjourned till the first Wednesday of November. The meetings will in future be held at the Marylebone Institution, Edwards Street, Portman Square: and ladies will be admitted every night.—The rest of this number is filled with cases reported by Dr Elliotson, of palsy, and deafness and dumbness, cured by Mesmerism.

As yet, the readers of the *Zoist* have looked in vain for the promised revelation of those all-important and regenerating principles and deductions which "the faint-heartedness and cold calculating withering apathy of our leaders"—"men who have winked at error, for the most selfish of all objects, a contemptible and fleeting popularity,"—had, until the advent of the *Zoist*, prevented them from "boldly avowing" as "the deductions to which an unfettered intellect would lead." It is to be hoped that the *Zoist* will proceed, without farther delay, to redeem its pledge.

2. *The Phrenological Almanac*, No. III., for 1844, though

containing some good matter, is not quite equal to its predecessors. The first article, "On Crime and Punishments," is a brief summary of views which have been repeatedly stated in this and previous numbers of our Journal, and which, therefore, need not be farther spoken of here. We observe on page 3, a statement which, taken by itself, may lead to misapprehension; namely, that "Phrenology inculcates that the sole object of punishment ought to be the reformation of the criminal." Now, a person may be a thorough phrenologist, and yet believe, as we ourselves do, that *another* very rational and important object of punishment is the creation of motives which may induce others to refrain from crime. The accomplishment of both objects at the same time, is by no means impossible. Article III., entitled, "What is the precise Worth of Phrenological Science?" has been called forth by the article headed "Phrenological Ethics" in the 150th No. of the *Edinburgh Review*. It is written in a fantastically pompous style, and, like another paper in the Almanac, evidently from the same pen (see p. 58), will give pleasant exercise to the ingenuity of those who love the abstruse in literary composition. After intimating his dissent from several doctrines of Mr Combe, the author devotes two pages to his "main business" of "picking up the gauntlet which the reviewer has cast at Gall's disciples, by defying 'any person to point out a single theoretical or practical purpose to be effected by Phrenology, that cannot be effected without it.'" In doing so, he seems to overlook the fact, that the reviewer is speaking of Phrenology in its *ethical* bearings alone.—The other papers in the Almanac are a "Historical Sketch of Mesmerism;" "Thoughts on viewing the Portrait of Handel;" several "Sketches of Character," extracted from Spurzheim's *Phrenology in connection with the study of Physiognomy*, and illustrated by wood-cuts; "The Statesman," a phrenological sketch of character; "The Phrenological Character of Daniel Webster," from the *American Phrenological Journal*; "The Weather viewed as a Science;" reviews of books; a communication from Dr R. H. Collyer on Phreno-Mesmerism; and a list of seventeen phrenological societies. The work is got up with considerable industry, and is sold at a very moderate price.

3. *Gall on the Functions of the Brain*, Parts I., II., and III.; forming the first three Parts of *The Phrenological Library*.*—This is a handsome reprint, in 8vo, of the translation of Gall's work by Dr Winslow Lewis jun., of Boston, U. S., with numerous improvements in the style. The name of Dr Lewis,

* For the names of publishers of this and other works, see our list of books received, in the last page of the present Number.

however, is not mentioned. Each Part consists of 48 pages. The anatomical embellishments on the cover of *The Phrenological Library* are not altogether to our taste.

4. *Spurzheim's Outlines of Phrenology*, royal 8vo, is the first of a cheap series of the works of Gall and Spurzheim, Dr Morton's *Crania Americana*, &c., edited by Mr Goyder of Glasgow. It is printed in a clear readable type, and illustrated by a number of tolerably executed wood-cuts.

5. *Dr Combe's Physiology applied to Health and Education*, 12th edition, royal 8vo.—In the preface to this "People's Edition," which is sold at one third of the price of the work in its other form, the author says:—"That progress is really making in a right direction, may be inferred from the numerous examples every day presenting themselves, of the successful application of physiological principle to the promotion of human improvement. Among many others, I may refer to the pains taken and the expense incurred, by Government, in the proper ventilation, lighting, and heating of the new Houses of Parliament, and many of the public Offices and Hospitals; to the recent official investigation into the means required for promoting health in large towns; to the attention now devoted to secure an improved construction of houses, a better supply of water, more thorough draining, and a more adequate supply of the necessaries and comforts of life, as well as a proper system of education and moral training, for the labouring poor; and lastly, to the special provision so carefully and intelligently made in the army and navy, for the health, morality, and comfort of the men. All these and many other examples afford striking proofs of the extent to which a perception of the influence of the laws of physiology is beginning to pervade the more enlightened portion of the community; and warrant the hope that a much higher degree of improvement may yet be reached, by the wider diffusion and application of physiological knowledge, than is at present generally expected. To effect this, however, not only parents and the teachers of the young, but the young themselves, of all ranks and both sexes, must be made familiar, at an early age, with the nature of their own organization, and *trained by example*, as well as by precept, to the practical observance of the laws by which their functions are regulated. It is with a strong wish to contribute all in my power to this most desirable end, that I am anxious to place this volume within the reach of every class, and especially of the many parents and teachers, both male and female, who have never enjoyed an opportunity of acquiring correct information regarding the physical and mental constitution of man, and who, with the very best intentions, and the strongest desire to discharge their duty, often fall in-

voluntarily into error from the want of it. Even with every aid, the task of the educator is not less arduous than important; and if his success does not always correspond to the zeal, talent, and industry which he brings to its performance, the cause is to be looked for in the prevailing ignorance of the nature of man, far more than in any deficiency peculiar to the individual. Every experienced medical man must be familiar with cases where efforts which, under the guidance of physiological knowledge, would have secured the richest harvest of results, have either been expended in vain, or even been productive of direct, and sometimes permanent, injury to the pupil. To parents and teachers, then, this volume is offered, in the hope that it may afford them both aid and comfort."

6. *The People's Phrenological Journal*, Parts VIII to XI. (Oct. 1843 to Jan. 1844).—The most valuable of the recent articles are several by Mr Luke Burke on the effects of the temperaments, and of education and circumstances, upon the mental character; and those of Mr Hudson Lowe on an organ and faculty of Contrast, and on the intellectual faculties generally. Mr Lowe's papers are a development of one which he read to the Phrenological Association last summer: he complains of the mutilated condition in which his abstract of it has been printed in the *Zoist*.—A writer in No. XL., p. 475, describes, and represents in a woodcut, a craniometer which he has invented, but which is identical with that submitted to the Phrenological Society in Edinburgh twenty years ago, and found to be of no use in practice. An engraving of the instrument was given by Mr Combe in the first and perhaps one or two other editions of his *Elements*.—The Part for January is the commencement of a new series of *The People's Phrenological Journal*, which is in future to be edited by Mr L. Burke. Of that gentleman's talent and knowledge we have already expressed a favourable opinion; and under his management the work, we have no doubt, will be conducted with increased vigour. He promises to state his own opinions freely, but without dogmatism; favouring no sect, and directing his efforts solely to the discovery and dissemination of truth. A series of articles on ethnology is to appear forthwith. On a future occasion we shall perhaps give an abstract of the more original of his views, many of which accord with the conclusions to which we have been led by our own observations.

Several other works deserving notice are before us; but our space being now exhausted, the mention of them must be deferred for the present.

IV. INTELLIGENCE, &c.

Meeting of the Phrenological Association.—The sixth annual meeting of the Association was held in the theatre of the Marylebone Literary and Scientific Institution, Edwards Street, Portman Square, London, on 3d July 1843, and five following days.

July 3.—Charles A. Tulk, Esq. in the chair. The Secretary, Mr E. S. Symes, read the Committee's Report, which, after mentioning the resignation of nineteen members in 1842—the subsequent Declaration subscribed by seventy-one other members, and published in the *Phrenological Journal*, xvi. 94—the opinion which had been obtained from some Scotch phrenologists that it would be more expedient to have the next meeting in London than in Edinburgh—and the consequent determination of the Committee to make arrangements for holding it in the metropolis accordingly,—went on to say, that at a recent meeting of the Committee for that purpose, Mr M. B. Sampson proposed that the above-mentioned Declaration should be entered on the minutes; adding, however, that he had no authority from any one to make such a motion. “And at a subsequent meeting of the Committee, Mr Sampson renewed his proposition in a somewhat altered form. These motions were neither of them seconded, and consequently fell to the ground. It will scarcely be necessary for your Committee to remind you, that, with every desire to give effect to the wishes of any of the members of the Association, they were not empowered to enter anything whatever in the books of the Association, excepting the minutes of their own proceedings; that their duty is confined to the transacting of the private business of the Association, the various arrangements for the meetings, &c.; and that your Committee would have been altogether exceeding their powers, if they had presumed upon their own authority to enter a declaration of any number of members in the books of the Association.” In consequence of this resolution, however, Mr Sampson, and twenty-five members who concurred with him, announced their resignation. (See *Phren. Jour.* xvi. 309). The Report expressed the regret of the Committee that such a step had been adopted, the grievance complained of being “the withholding of a right by the Association, which the Association have never yet had an opportunity of granting (for be it remembered that the declaration has never yet been sent to the Association or any of its officers, as such); and upholding the propriety of ‘a sincere and fearless regard for the promulgation of truth,’ the parties withdrawing from the Association solely because the Committee had not consented to exceed their powers, by entering in the books of the Association a protest on the sole ground of expediency, against the expression, by an individual, of an opinion which he believed to be truth, and the truth of which they did not dispute. Amongst these were three members of the Committee: and four other gentlemen sent in written resignations; two of whom, also members of the Committee, grounded their resignations upon the same plea.

“Your Committee have felt bound, in justice to themselves, to submit this short statement of facts to the Association, 1st, because your Committee are desirous of having no concealments from the general body of members; and, 2dly, to shew that these hasty secessions have not been caused by any informality, or attempt to suppress opinion, on the part of your Committee.

“Should any member be desirous of bringing the subject of the declaration more particularly before the Association, it is competent for

him to do so at the Business General Meeting, of which due notice will be given ; and then would be the proper time to discuss the propriety of recording it in the books of the Association ; but your Committee cannot presume to offer any opinion upon the *expediency* of such a course.

" Your Committee added the following gentlemen to their numbers : Sir Wm. Baynes, Bart. ; George Bird, Esq. ; G. J. Davey, M.D. ; M. le Dr Fossati ; Samuel Joseph, Esq. ; S. G. Howe, LL.D. ; William Kingdom, Esq. ; R. C. Kirby, Esq. ; S. T. Partridge, M.D. ; Professor Rigoni, M.D. ; Richard Rothwell, Esq. ; J. B. Sedgwick, Esq. ; William Wood, Esq. ; W. S. B. Woolhouse, Esq., F.A.S. ; and appointed Dr Davey joint Secretary with Mr Symes.

" Your Committee have the satisfaction to add, that a considerable number of new members have joined the Association, so that notwithstanding the defections, the actual number of the members is now greater than at any former period. In the published report of the Committee, at the opening of the 4th session, it was stated, that, at the close of the session at Glasgow, the number of members amounted to 158 ; 84 new members had subsequently joined the Association, making the number then 242. Last year some increase had probably taken place, but the numbers were not stated ; altogether there are now 88 new members. The present number is 283, shewing an actual increase of 41 over the last published statement. Amongst the new members, your Committee are gratified to find the names of several ladies.

" Your Committee have to acknowledge the liberality of the Phrenological Society, in placing their museum at the disposal of the Association ; and your Committee have selected the casts before us as illustrations of various forms of heads. The diagrams are kindly lent us by Mr Symes."

" In conclusion, your Committee, anxious to carry out to the fullest extent the objects of the Association, one of the most important of which is the *advancement* of the science by discussions and investigations calculated to lead to new discoveries, which can only be accomplished by preserving the utmost freedom of inquiry, beg to reiterate the announcement usual with this and other scientific bodies, that they cannot, any more than the Association at large, be responsible for the individual views or opinions of any of its members."

The report was received unanimously, and Dr Elliotson delivered the opening address, of which the principal subjects were Materialism, Mesmerism, and the conduct of those members who had withdrawn from the Association. He adverted to the opinions of Gall about Mesmerism ; quoting passages on that subject from his 4th work, and stating, that, though Gall rejected the phenomena of clairvoyance (as no patient whom he examined exhibited them, and Dr E. understood that he saw nothing of the kind that ought to have satisfied any person, and saw the quackery of Mesmerism that still abounds as it does in all parts of medicine), he admitted the reality of Mesmerism, and has detailed his own personal experience. " How often," he says, " in intoxication, hysterical and hypochondriacal attacks, convulsions, fever, insanity, under violent emotions, after long fasting, through the effects of such poisons as opium, hemlock, belladonna, are we not, in some measure, transformed into perfectly different beings, for instance, into poets, actors, &c. ? Just as, in dreaming, the thoughts frequently have more delicacy, and the sensations are more acute, and we can hear and answer ; just as, in ordinary somnambulism, we can rise, walk, see with our eyes open, touch with our hands, &c. : so we allow that similar phenomena may take place in artificial somnambulism, and even in a higher degree." If Gall (proceeded Dr E.) thought Mesmerism sufficiently connected with

the phenomena of the brain and nerves to introduce it into his great work, the members of this Association were hardly justified in opposing and censuring its mention at our meeting, where it was introduced as a mode of corroborating the truth of Gall's organology, and a means of making further discoveries in the functions of the brain.—After dilating farther, at considerable length, on Mesmerism, its applicability to Phrenology, and the history of the discovery of the relation of the one to the other, Dr E. proceeded—"There can be no doubt that excitement of cerebral faculties, singly and in various combinations, in the mesmeric state, may be the result of mere suggestion. If the patient has an idea of the situation of an organ, such is often the excitability in the state, that the mere contact of any thing felt in that situation will irresistibly impel him, without any desire to deceive, to fancy it excited, and thus cause its excitement. Nay, by misinforming a patient as to the seat of organs, Combateness may be excited by touching over Benevolence. Further still, if an association is established in a patient's thoughts, a faculty may be excited by touching a distant part; Benevolence by touching the nose, and Combateness by touching the chin: and combined actions and states of different organs may be produced in the same way. No wonder, therefore, that some fancy they have discovered two hundred new organs, and organs too for aerostation, gambling, drunkenness, insanity, felony, and I cannot tell what other absurdities. When, therefore, phrenological experiments are made in the mesmeric state, there should be no contact, nor any thing which can communicate to the patient what is expected; or, if there is contact, we ought to be absolutely certain that the patient is ignorant of the nature and situation of the organs. Then, again, the power of the will of the mesmeriser probably may do much. I myself have never produced any mesmeric effect by my will. But so many persons have related experiments to me which appear satisfactory, that I must admit its influence. I therefore allow that there has been extreme fallacy in the views of experimenters, and much injury to both Phrenology and Mesmerism: that unreal organs have been thought to be discovered, and false views taken of mesmeric influence. Still there can be no doubt of the fact of excitement and stupefaction of individual cerebral organs by mesmeric influence. To be certain that the effects on the cerebral organs result from mesmeric agency, I conceive (1.) That the subject should have no means of knowing what is intended: that not a word should be uttered or any thing done which could by the slightest possibility suggest to him the expectation of the operator. There should not even be contact over any organ, unless it is known with *absolute* certainty that he is totally unacquainted with Phrenology. Thus will suggestion, association, imagination, be prevented from acting. (2.) The operator should will nothing: he should, if possible, not know to what cerebral organ he is pointing, that the will may be prevented from acting. If the subject is ignorant of the cerebral organs, or ignorant of the spots over which the influence is being exerted, and the operator does not will or know what organ he is influencing, and the established faculty is excited always, or as often as any other mesmeric effect, or a vital effect of any kind from any cause, is produced, I should consider the proof complete. Now, these conditions I have seen fulfilled times innumerable." After illustrating this subject by cases, and remarking on "poor Mr Wakley's blunders" and "ridiculous conclusions," Dr E. continued—"In six of my patients am I able to excite distinct cerebral organs. In all I can excite *Benevolence* and *Friendship*, *Pride* and *Destructiveness*. In three I can excite these four only. In one, *Veneration* also; in one, *Veneration*, *Music*, and *Wit* also; and in one, *Music* and *Colour* also.

In four I can excite the organs by merely pointing ; and these are the three in which I can excite Benevolence, Friendship, Pride, and Destructiveness, and the one in whom I can excite only these and Veneration. Three of these six patients cannot speak or see in the mesmeric state, and shew the action of the Benevolence, Attachment, Pride, and Destructiveness, by silent language." Dr Elliotson concluded his address by remarking, that the importance of Mesmerism in diseases of the brain is probably very great ; that Phrenology has hitherto done little for the cure of insanity, though the physician who is ignorant of it and treats the insane, must be like the peasant who tills the ground and reaps the corn without knowing the meaning of the words geology and botany ; but that, by means of Mesmerism, we may hope that Phrenology will do something for the insane.

Dr Engledue then related the case of the father of a large family, who was suddenly seized with a desire to kill one of his children, whilst they were all assembled at the dinner table. The desire was not completely ungovernable. He said that he felt "as if he should be compelled to destroy his child." He retired from his house, and did not return for several hours, when the desire had almost vanished. Dr E. stated that he had been attacked in this dreadful manner several times, always suddenly and without any apparent cause. The application of the laws as lately defined by the judges was referred to, and consequently the lamentable position in which this individual would be placed, if an increase of diseased action in the brain should impel him to take the life of his child. —Dr Davey stated, that he had met with several similar cases ; one of which he detailed to the meeting.

July 4.—Dr Elliotson in the chair. Mr Atkinson read a paper on the importance of Mesmero-Phrenology, as a means of convincing the world of the truth of Gall's discoveries. He announced a discovery which he had made by the assistance of Mesmerism, and through other means, of the functions of the cerebellum ; but as his paper has been published at full length in the *Medical Times* of 5th and 12th August, and also been noticed in this Journal, No. 77, p. 393, and No. 78, p. 25, we proceed to say, that, after Mr Atkinson had read it, Dr Elliotson said, that he had never excited the cerebellum in any of his patients, for he had been anxious to abstain from any course which might at all be considered incorrect in reference to them, but that, in the circumstances of this case, Mr Atkinson was quite right in having done so. Dr Engledue then related a case, in which he could excite muscular sense and muscular strength, by touching in the region of the cerebellum. Some objections having been raised by other members and answered, Mr Atkinson said he hoped that no expressions in his paper had conveyed the idea that he wished to press these facts and opinions on the meeting. He merely had brought to the meeting the result of his labours. He had explained the different means which he had used, and the great number of ways in which he had tested each point which he had advanced. Let others go to Nature, and enquire for themselves if he be right or not. Nature is the source of all truth, and let us enquire of her first, that our opinions or objections may have weight.

July 5.—Dr Engledue in the chair. Dr Davey read a paper on criminal insanity, in which he brought under consideration the late proceedings in the House of Lords, relative to the plea of insanity, and the answers returned by the judges to the queries of that branch of the legislative body. Much error, he contended, has been disseminated by the public journals on the subject in question. The brains of those liable to intermitted insanity being diseased, such persons must be deemed irresponsible for acts which depend on such alterations of structure.

However quiet they may usually be when protected from anxiety and irritation, and when subject to the kind and considerate dictations of their superintendents, they are no sooner removed from such wholesome influence, than the brain necessarily rebels with the stimuli offered to it.

July 6.—H. G. Atkinson, Esq. in the chair. Dr Engledue read a paper on the same subject, the law of insanity; and the same views were advanced regarding the opinion of the judges as on the preceding day. The attention of the members was directed to the great power they possessed to enlighten men on the cause of their actions, whether in a state of health or disease. The present system of appointing judges, and the impropriety of selecting men to try cases of insanity, merely because they were great lawyers, was proved to be productive of considerable mischief. The character of evidence required, and the method pursued for the purpose of obtaining it, could never lead to any beneficial result. The decisions of a judge delivered two hundred years ago could be of no practical importance, if scientific men accustomed to the treatment of insanity were of a different opinion. After a long and interesting discussion, in which every speaker coincided with the author, Dr Engledue proposed, "That a committee be appointed for the purpose of embodying the views of cerebral physiologists on the important question of insanity and criminal jurisprudence, and to forward the same to the Legislature." The motion was seconded and carried unanimously.

July 7.—George Bird, Esq. in the chair. Mr Hudson Lowe read "an attempt to shew that the function of the organ hitherto termed Wit, is the manifestation of the idea and suggestion of Contrast." It is impossible within our limits to give an intelligible summary of his views.

July 8.—R. C. Kirby, Esq. in the chair. Dr Engledue recapitulated the proceedings of the previous sittings; and Dr Elliotson read a letter from a mechanic who had been present when Dr Engledue's paper was read, and who, among many other things, says,—“Had I been in a meeting of my equals in society last evening, I could have supplied them with a fact or two corroborative of Dr Engledue's statements and your remarks. Many years back, while sitting at dinner, my eldest girl, then a very little one, by my side, I felt—the desire shall I say, no, it filled my mind with horror—but I felt, while looking at her head, an impulse as though I could cleave the skull with the knife I held in my hand. Now, sir, I love my children, and I think I may say, they dearly love their father. I had then no feeling of dislike or resentment in my mind towards my dear child: whence, then, arose that dreadful thought—that horrid impulse? It is right to enquire, and the cerebral physiologist alone appears to me to be able to give the answer. I have said that two years ago I knew nothing of Phrenology, and what I know now has made me very cautious. I dare not pronounce an opinion upon my neighbour, unless some striking peculiarity appears in his cerebral structure.”

After this the last sitting, the annual general meeting took place; R. C. Kirby, Esq. in the chair. The secretary having read the names of twenty-four gentlemen recommended by the committee for the ensuing year, it was resolved, “1. That those twenty-four gentlemen do constitute the committee accordingly, with power to add to their numbers. 2. That William Kingdom, Esq. and William Topham, Esq. be appointed auditors of the accounts for the past session. 3. That the following gentlemen, with power to add to their numbers, be appointed the committee, which was determined upon at the fourth meeting, to report the views of cerebral physiologists to the Legislature: Dr Engledue, Dr Elliotson, M. J. Ellis, Esq., H. G. Atkinson, Esq.” The secretary having stated the recommendation of the committee, that in future every member of the Association should be called upon for an an-

nual subscription to the funds of the Association, Mr Logan said that at the last annual general meeting of the Association he had given notice of a motion to that effect, to be made at the present annual meeting: in accordance with which he now proposed that in future each member should pay an annual contribution of ten shillings. This being seconded, it was resolved, "That the future subscription of every member of the Association should be ten shillings per annum." The Association then adjourned till next summer.

Those who desire to see a more complete report of the proceedings of the Association, will find one in the third number of the *Zoist*, from which the foregoing particulars have been derived. The *Zoist* says, that the meetings were exceedingly well attended; which we are willing to believe, though a different report has reached us with respect to some of the meetings.

Edinburgh.—At the annual general meeting of the Phrenological Society, held on 11th December, the following gentlemen were elected office-bearers for the ensuing year: Sir G. S. Mackenzie, Bart., *President*; Patrick Neill, LL.D., Francis Farquharson, M.D., Charles Mac-laren, and Andrew Dun, *Vice-Presidents*; George Monro, George Cox, James Simpson, Andrew Combe, M.D., Peter Couper, and James Tod, *Councillors*; Robert Cox, *Secretary and Curator of Museum*. The following donations were laid on the table, and thanks voted to the donors:—Skull of a New Zealander, presented by John Mitchell, Esq., Leith.—Skull found at Dunbar, in a place where Suicides are buried; and exhibiting a depression of the bone at the situation of the organ of Hope; presented by Mr Robert Wilson.—Corso di Lezioni sulla Frenologia, Parts I. to V.; presented by the author, Dr Michael Castile of Milan.—Discours Préliminaire à l'Étude de l'Histoire Naturelle, avec Anecdotes des Animaux, par T. Forster, M.B., &c. Bruges, 1843; presented by the Author.—Since our last notice of the ordinary proceedings of the Society, two meetings have been held, on 7th April and 5th May 1843; at the first of which Mr Deseret read an Essay on the Nature of the Perceptive Faculties and Individuality, and at the second, an Essay on Relative Perception, in connexion with the Organ of Eventuality.

The Phrenological Society of Edinburgh versus Dr Robert Verity of Paris.—The following announcement, borrowed from the *Scotsman* of 20th December 1843, will make our readers acquainted with what has taken place since the date of what we published in vol. xv. p. 88:—

"A judgment was pronounced on one question in this important cause by the Cour Royale of Paris on 4th instant, as appears from the reports in the French law newspapers, *Le Droit* and *Gazette des Tribunaux*. Dr Robertson, a Scotchman, who had long resided in Paris, died there on 11th September 1840, leaving a will appointing the defender, Dr Verity, his executor, and making various bequests, after paying which, the whole residue (now stated at L.15,000 sterling) was directed to be paid over to the Phrenological Society of Edinburgh. This legacy not having been paid, the Society applied to the Tribunal of first instance, praying that Dr Verity should be ordered to deposit in the Bank of Consignation the whole sums in the inventory of the estate; or otherwise to pay such sum as the court might fix as the value of the estate. Dr Verity, being himself an Englishman, opposed this application on various grounds, alleging that the Society had no legal existence, and pleading the incompetency of the French courts to entertain any suit in which both parties are foreigners. This last objection was sustained by the tribunal on 18th November 1841. The Society, having appealed to the

Cour Royale, obtained a judgment on 8th August 1842, recognising the incompetency of the Court as to the ultimate rights of parties, but reversing the judgment of the inferior court on the question of consignment as a provisional or conservative measure, and ordering Dr Verity to deposit in bank the sums composing the executry.

"This judgment was silent as to the pecuniary amount of the estate; and in order to remedy this defect, the Society moved the Cour Royale for a judgment against Dr Verity for consignment of 30,000 francs to account; but this motion was refused on 7th September 1842, on the ground that it should have been made to the Tribunal of first instance.

"The Society then executed a seizure of articles in Dr Verity's house. This seizure was objected to by Dr Verity, but was sustained; and the judgment to that effect was confirmed on appeals first by the Cour Royale, and then by the Court of Cassation.

"The Society applied to the Tribunal of first instance for an order on Dr Verity to consign 30,000 francs to account. This the Tribunal refused as incompetent; and it was under an appeal from that judgment that the cause was heard and decided by the Cour Royale on the 4th inst. The Court, after hearing the counsel for the parties, reversed the judgment of the Tribunal, and ordered Dr Verity to pay 30,000 francs into bank, and 50 francs for each day's delay; but refused a warrant of imprisonment.

"The great difficulties which, as this case evinces, lie in the way of foreigners obtaining justice against each other in France, are well worthy of the attention of Lord Aberdeen. The principle of the French law we understand to be, that the French courts are instituted for the use of Frenchmen only; and that where both parties are aliens, the courts will not interfere. This is a relic of barbarism quite unworthy of a great and enlightened nation, and receives no countenance from the laws either of England or Scotland, which administer justice betwixt foreigners equally as betwixt subjects. The partial remedy of consignment, allowed with so much difficulty in the case of Dr Verity, is applicable only to a small class of cases, and is in itself an imperfect and unsatisfactory remedy. The facilities of transit to France now enjoyed render that country a tempting asylum for those who desire to evade the fulfilment of their obligations; and it cannot be doubted that France, if the matter were brought properly under her notice, would not longer permit her laws and territory to be perverted for such a purpose. We make these observations without reference to the merits of the question betwixt the Phrenological Society and Dr Verity, these not having yet been decided on, so far as appears, by any tribunal."

Lectures on Phrenology.—The following courses of lectures, lately delivered, have been reported to us:—

1. A course of four lectures in the Assembly Room, *Alloa*, by Mr D. G. Geyder, under the auspices of the *Alloa Phrenological Society*. The concluding lecture was delivered on 8th December. "The average attendance," says the Secretary of the Society, "was about eighty, which was nearly double the attendance at any former lectures on Phrenology here. A desire was expressed that Mr Goyder would deliver a more extended course, which he will probably do in the course of two months."

2. At *Glasgow*, a course of thirteen lectures by Mr Goyder, commencing 11th December.

3. Lectures by Mr C. Donovan, at various towns in the south of England; viz., at the *Athenæum, Portsea*, four on Phrenology, and one on the Moral and Physiological Treatment of Infancy; at the Literary and

Philosophical Institution, *Portsmouth*, three on Phrenology, as the basis of education; at the Mechanics' Institution, *Winchester*, two on the same subject; at the Mechanics' Institution, *Chichester*, three on the same subject; at the Mechanics' Institution at *Newport*, Isle of Wight, four on Phrenology, and four morning lectures on the same subject; for Mechanics' Institution, *Cowes*, three on Phrenology. Mr Donovan has also delivered a lecture on the rise and progress of Mesmerism, at the *Southwark* Literary Institution, and the *Chichester* Institution, with illustrations; by the special request of the Committees of these Institutions. He delivered one lecture on Phrenology at *Gosport*, for the Literary Institution: all the above since the 16th of October. The following paragraph is from the *Hamphire Telegraph* of 20th November:—"Last evening, Mr Donovan closed his present series of lectures on Phrenology, before the Philosophical Society (*Portsmouth*), treating particularly of the 'Architecture and Functions of the Anterior Portions of the Head.' His observations were instructive and highly interesting. The president, in presenting to him an unanimous and very cordial vote of thanks, observed that all along he had so treated a subject often the source of unkindly feeling on former occasions, as to avoid giving offence to any, however different their views; and that, though he might not have succeeded in persuading all to think as himself, he had evidently impressed all with pleasing feelings and very lively interest."

We learn that courses of lectures on Phrenology are to be delivered in various towns of *Germany*, this winter, by Mr Von Struve, Dr Hirschfeld, and others. The former was to begin his course on 8th November, and expected to have the Duke of Saxe-Weimar among his auditors. Dr Hirschfeld will lecture in Berlin, and there will be a course also in Heidelberg.

Three lectures on Insanity were delivered at *Dumfries*, on 13th, 14th, and 15th November, by Mr James Brown, late of the Crichton Royal Institution. The malady was examined phrenologically; reasons were assigned for its alarming increase; and its causes and nature were investigated and illustrated by numerous cases, among which were those of Oxford and M'Naughten.

Lectures on Mesmero-Phrenology were delivered by Mr S. T. Hall at *Sheffield* in October, and *Derby* in November. At the former place (as we learn from a long report of his lectures, in the *Sheffield Independent* of 28th October), he announced the discovery that "there is a part of the organ of Tune appertaining to each note of the gamut; and of Colour, for each primitive colour." He also "induced manifestations of the reverence of God, of man, and of the worship of nature. To the two latter organs he attributed the deification of heroes by the ancients, and of the sun by the Persians"! It appears, that at Derby he has cured stammering by Mesmerism. In the course of his public experiments there, when two boys were mesmerised, "the pressure of their heads upon the chair-back, or the floor, produced the same cerebral excitement as that caused by contact with the operator." To a medical gentleman, desirous of applying tests to the cases, and who said that his mind was not decidedly made up as to the truth or fallacy of Mesmerism, Mr Hall replied,—“If you are a believer in Mesmerism, you have a reason for your faith; if you are *not* a believer, you cannot understand it; and if you do not understand it, you cannot test it.” This, if correctly reported, is a rather odd kind of argument. “Ultimately,” says the *Derby Reporter* of 10th November, “Mr Hall consented to permit certain tests to be applied. Mr Greaves suggested that Holbrook should be re-mesmerised; and that Mr Hall should

point to one or two cerebral organs without contact, in order to see whether the manifestations would be accordant with their ascribed functions. Mr Hall said, that, by pointing towards an organ, it might be excited, but the instant the manifestation commenced, the relative position of his finger and the patient's head might be so changed as to influence the approximate organs. If they would bear this in mind, he had no objection to try. On pointing towards the organ of Benevolence, the patient began to change his position, when Mr Hall stated that his finger was then brought in approximation to the organ of Comparison, which he contended was indicated by Holbrook first saying he was very glad of something, and then drawing a comparison between two imaginary persons. Several other attempts were made; but, as Mr Hall had predicted, they were unsatisfactory to both parties."

Dr Collyer, late of America, has recently been delivering lectures on Mesmerism, in *Liverpool, Glasgow*, and probably elsewhere. On 28th August, Mr T. Elliot lectured on the same subject, at the Literary Institution, *Leamington*, to the members of the Institution. He exhibited mesmero-phrenological experiments of the usual kind. A notice of them in the *Warwick Advertiser*, of 2d September, concludes thus:—"We can state, with safety, that the company separated, impressed with the truth and reality of what they had witnessed."

Proceedings of the Christian Phrenological Society.—Continued from last Number of this journal.

London, July 5th 1843.—Mr Hewett read a paper on Mesmerism in connection with Phrenology, on which an interesting conversation took place.

August 2.—Mr George Holmes and Mr Alexander Sparkhall were elected members of this society. The conversation on Mesmero-Phrenology was resumed.

September 6.—Dr Normandy (a proposed member) read a paper "On Ideology, or, on the Intellectual Faculties of Man;" in which he reviewed the opinions of the ancient philosophers on the subject, and pointed out the fallacies in their systems, which had been made evident by modern discoveries. An animated discussion followed the reading of this very original paper, and it was agreed to resume the consideration of the subject at the next meeting.

October 4.—Dr Normandy was elected a member. He called the attention of the meeting to the subject of "Spontaneous Creation," being part of his paper read at the last meeting.

November 1.—The subject of spontaneous creation was resumed, and a conversation ensued, in which some highly novel views were elicited.

December 6.—Dr Normandy read a second paper "On Ideology," in conclusion of his observations on that subject, upon which several difficulties were stated, and ingeniously answered by the Doctor.

THOS. CHALMERS, *Secretary*.

126 JUDD PLACE, NEW ROAD, LONDON,
December 11th 1843.

Sheffield Phrenological Society.—This Society was established May 13, 1842. Corden Thompson, Esq., M.D., *President*; Samuel Eadon, Esq., A.M., *Honorary Secretary*; Mr John Derby, *Financial Secretary*. Meets every Thursday evening, from October to March, in the Assembly Rooms. Public lecture every month. Proceedings during the session:—The following lectures have been given: Introductory Lecture, on the Fundamental Principles of Phrenology, by Corden Thompson, Esq., M.D., the President; Mesmero-Phrenology, by Mr Carstairs; Phrenology applied to Educational Pursuits, by the Rev. D. G. Goyder, A.M.; on the crania of

the North American Indians, by Mr Catlin ; Anatomy of the Brain, by [Mr Carstairs ; on the Harmony existing between Mesmero-Phrenology and the System of Gall, by Mr S. T. Hall ; on the Theory of Animal Resemblances, by the Rev. D. G. Goyder, A.M. At the Thursday evening meetings, the following papers have been read : on Amativeness, by Mr Bartram ; on Philoprogenitiveness, by Mr Wilkinson ; Concentrativeness, by Mr Wilson (on which subject there was a three nights' discussion) ; Adhesiveness, by Mr W. C. Corsan ; Combativeness, by Mr Stocks ; Destructiveness, by Mr Turner ; Alimentiveness, by Mr Featherstone ; Constructiveness, by Mr Wilkinson ; Secretiveness and Acquisitiveness, by Mr Dewsnap ; Self-Esteem and Love of Approbation, by Mr Derby ; Cautiousness, by Mr W. C. Corsan ; Strictures on Phrenology, by Mr Cooper. These essays have occasionally been interspersed with readings from the *Phrenological Journal, Almanac, &c.*, with discussion on the contents of the same ; experiments in Mesmerism, manipulation of heads, deciding upon the characters of individuals of whom the skull alone remained, &c.—*Phrenological Almanac for 1844.*

Wolverhampton.—On 28th October, Mr W. R. Lowe read, before the members of the Literary and Philosophical Society, a paper on "Criminal Jurisprudence," supplementary to one contributed in 1842, on "the Heads of Criminals." The views expressed by Mr Lowe appear, from a report in the *Wolverhampton Chronicle* of 1st November, to have accorded with those maintained by Mr M. B. Sampson in his work on the same subject. The discussion that followed the reading of the paper is stated to have been "characterised by a striking agreement of the members with the views of the author respecting the inefficiency and injustice of capital punishments." The same newspaper of 6th December reports, that an essay was read before the Society on 14th November, by Mr Gatis, "on some anatomical and physiological objections to the phrenological doctrines of the day." These objections were—(1.) That the external contour of the head is not necessarily a guide to the quantity of brain within, inasmuch as the diploë between the tables of the skull differs in thickness in different persons, and in the same person at different parts, and there are sometimes very large sinuses ; (2.) That, as the brain consists of the grey and white substances, the former of which is considered by physiologists to be the source of power, and the latter to be a mere conductor, it becomes necessary for phrenologists to ascertain the depth of the former as compared to the latter, before they can arrive at a correct conclusion as to the extent of each ; (3.) That the mere comparative size of the brain, irrespective of temperament, affords no measure of the amount of mental power ; and (4.) That the cerebellum has been proved, by the experiments of Magendie and others, as well as by pathological cases, to be the seat of the functions of the voluntary motions.—The first and last of these objections are discussed in every treatise on Phrenology ; the third is only a statement of what phrenologists themselves have long taught ; and as to the second, we refer to what is said on page 82 of this Number.

A Phreno-Mesmeric Society, consisting chiefly of medical men, has lately been formed at Wolverhampton, "for the purpose," says the paper last referred to, "of investigating those deeply interesting and mysterious phenomena which have lately caused so great a sensation here and elsewhere ; and the Literary and Philosophical Society has kindly granted the use of its rooms for their meetings. The society held its first meeting on Friday, the 24th Oct., when some deeply interesting manifestations were elicited. We are glad to learn that the wonders of Phreno-mesmerism will thus be thoroughly examined and inquired into

by experiments on our own townsmen, who are not likely to lend themselves to imposition; and will, therefore, be free from that suspicion which always attaches, in a greater or less degree, to patients accompanying lecturers from a distance." There are similar societies at Liverpool and Walsall.

Lancaster Phrenological Society.—Owing to some most successful experiments in Phreno-mesmerism, made in Lancaster by an individual who has for some time been an amateur in Phrenology, a considerable desire was felt to form a society in which this subject should be scientifically investigated, and the results of experiments carefully minuted. Accordingly, on 30th June 1843, a meeting of about twenty individuals was held, at which it was resolved that a society be established in this town for the purpose of investigating, and acquiring information upon, the phenomena of the mental faculties, and that this association should be called "The Lancaster Phrenological Society." Other rules were drawn up to further our efforts, and it was determined to take in the chief magazines which treat of Phrenology and Mesmerism, and to meet regularly from week to week to make experiments and discuss the subject. From that time to this our meetings have continued to be attended regularly by an increasing number. Our subscription is at present 1s. a-quarter, and we have already 44 members, which, considering the smallness of this town, and the general indifference shewn here to subjects of this nature, we consider to be highly encouraging. Phrenology was not previously known to, or at least not advocated by, I believe, more than about half-a-dozen individuals in the town, probably by fewer. We have now five medical men among our number. Hitherto we have had only two subjects whose mesmeric state we could examine at our meetings; but these are so susceptible, and their manifestations of so decided and unexceptionable a character, that we could scarcely wish for others, were it not for the sake of seeing if the results would be similar. Many of our members have, however, confirmed most of our results by private experiments at home. At two separate meetings, we have gone through all the ascertained organs according to Mr Combe's System.—RICHARD SHAEN, *Secretary*. 11th Sept. 1843. [Mr Shaen has favoured us with details of the experiments, which we regret the impossibility of inserting in this Number.]

Jamaica.—Wm. A. Garrison, cousin to Wm. Lloyd Garrison, has been practising Phrenology and Magnetism in Jamaica, West Indies, for some two years past. He visited this country to augment his knowledge, and has just returned with a large supply of works on Phrenology, among which were two hundred and fifty of Fowler's Phrenology, and several complete sets of the Journal. He has done much to convince the inhabitants of these delightful isles of the truth both of Phrenology and Magnetism, and promises to correspond frequently with the Journal. We hope he will not fail to do so, and trust the West Indians will have occasion to thank him for introducing so valuable a science to their notice. May prosperity attend him.—*American Phrenological Journal*, June 1843.

Death of Dr John Maxwell of Glasgow.—We regret to announce the death of this benevolent and respected physician, and, for many years, staunch adherent of Phrenology. Dr Maxwell was a member, and formerly president, of the Glasgow Phrenological Society; also a member of the Faculty of Physicians and Surgeons, and of the Society of Friends. To this Journal he contributed "Remarks on a Notice of George Fox,"

in vol. x. p. 19; and "Letter on the Organ marked 'P'," in vol. xii. p. 357. In the *Phrenological Almanac* for 1843 is a paper by him "On the Parallelism of the Tables of the Skull," the greater part of which was quoted in our 16th vol. p. 85. Dr Maxwell died of typhus fever on 3d November 1843.

Dr Conolly.—This gentleman, whose admirable administration of the medical affairs at the great County Asylum at Hanwell, has been so often the subject of our commendation, has changed, in some degree, his relations to that institution. The claims of the public in general on Dr Conolly's time have now rendered his residence *out* of the asylum more convenient, and the Middlesex magistrates have accordingly made arrangements with him, so that, while still retaining all his former authority, and the uncontrolled medical direction of the patients, Dr Conolly is no longer to reside within the walls, but to visit it as often as may be necessary. If this new arrangement should in any way diminish the usefulness of Dr Conolly to the poor lunatics who have so long experienced his enlightened and more than paternal care, we shall deeply regret it; but as we hope and believe that this will not be so, we shall, in common with the public, have reason to congratulate ourselves on its having been made. Dr Conolly will now have much ampler opportunities than heretofore, of applying his admirable system to the more educated classes of society, as it is understood that he has consented to preside over an establishment in the vicinity of London, prepared and arranged for the higher classes of the community. As Dr Conolly, while free henceforth to follow the line of his practice as a consulting physician, will *reside* at this latter establishment, we shall soon have an opportunity of proving whether the paternal or non-restraint system of treating lunatics, be as applicable to the educated as to the non-educated classes. In our own minds there exists not a shadow of doubt on the subject; but we hope that, by the end of another year, we shall be able to speak, not speculatively only, but from positive facts. In the meantime, looking at what Dr Conolly has already done, we cannot but regard him as one of the most distinguished men of the present age, and one whose name will pass down to posterity with those of the Howards, the Clarksons, the Father Mathews, and other great redressers of the wrongs, crimes, and miseries of mankind.—*Morning Chronicle*, Oct. 5. 1843.

The Phrenological Journal has now completed the twentieth year of its existence, the first number having been published in December 1823. With the exception of vols. xi. xii. and xiii. which were edited by Mr Hewett Watson, and printed in London, the work has all along issued from the Edinburgh press. It is cheering to compare the estimation in which Phrenology is now generally held, with the almost universal ridicule that was bestowed upon it in 1823.

London Ethnological Society, Nov. 22, 1843.—This being the first meeting of the Session 1843 and 1844, it was put to the members, and carried unanimously, that the society should no longer exist as a provisional one, but be at once constituted; and that until the members numbered 200, those who joined it would have advantages over all subsequent additions to the list. Laws were passed for future guidance of the society, and the following gentlemen were then elected the officers for the ensuing year:—Rear-Admiral Sir Charles Malcolm, president; His Grace the Archbishop of Dublin, the Hon. Mount-Stuart Elphinstone, George Bellas Greenough, Esq. F.R.S., and James Cowles Prichard, M.D., Vice-Presidents; Messrs J. A. St John, Joseph Legg Postle-

thwaite, William Oldam, M.D., Thomas May, Walter K. Kelly, William Elphinstone Malcolin, Thomas Hodgkin, M.D., W. Holt Yates, M.D., Andrew Smith, M.D., and Sir Benjn. Collins Brodie, Bart., Council; Samuel Duckworth, Esq., Treasurer; Richard King, M.D., Secretary.

The Ojibbeway Indians at Manchester.—This interesting party of North American Indians have been visited during their short stay here by many thousands of persons, and, notwithstanding the inclement state of the weather during the last day or two, Mr Catlin's gallery has been numerously attended both morning and evening. The Indians are much gratified with their reception by so many successive crowds of visitors, and the number of presents they have received in the gallery and elsewhere. On Saturday last, Mr Bally attended in their private apartments, for the purpose of taking casts of such of the chiefs and warriors as would permit him. In order to give them some idea of this novel operation Mr Catlin jun., first submitted his head to the bowl and his face to the plaster, and when his features were covered with a mask of the soft composition, the diversion of the Indians was extravagant. They laughed immoderately, and their jokes were uttered with great fluency; every fresh simile or comment causing another burst of laughter. At length the operation having been performed on the white man, the old chief intimated that he was ready to go through the same process. He remained perfectly passive, and when the cast was broken in the removal, he said (as stated by the interpreter), "No matter—try it again;" and the operation was repeated with perfect success. The war chief was the next, and, after him, each of the three warriors; but the interpreter (the half-breed) declined, for some reason or other, to have his cast taken. These casts will be added to the already rich and extensive phrenological collection of our ingenious and skilful townsman, Mr Bally. On Sunday morning, the whole party of Ojibbeways proceeded to the photographic gallery, where the portraits of the nine individuals were taken in rapid succession. The Indians were greatly surprised at the "mystery," by which portraits were obtained in so very short a time. We understand that the portraits were very good ones, the proverbial immobility of the Indians making them admirable "sitters." We believe that Mr Catlin purposes to have lithographed likenesses of the party completed by the aid of these photographs.—*Manchester Guardian*, Nov. 22, 1843.

Influence of Gestures in Exciting the Mental Faculties.—The effects of the various positions and motions of the limbs and body on the mind have not yet been studied by physiologists with all the attention the subject deserves and requires. That attitudes and postures exert a very important influence on the mind, may be proved by the effects of the manipulations used by the practisers of animal magnetism, and by the testimony of actors, who acknowledge that it is difficult to assume the posture indicating any passion without feeling more or less of that particular emotion. We cannot throw ourselves into the attitude of the striking combatant, without feeling somewhat of the ardour which would give strength to his blow; neither can we imitate the shrinking position of the terrified, or the headlong flight of the pursued, without partaking more or less of these fears. To a certain extent this circumstance, combined with the contagious nature of fear, may explain the difficulty of rallying troops if once they have turned their backs to the enemy; and even the bravest and best-disciplined soldiers, in retreating leisurely before an advancing foe, find it a task to proceed in good order. The attitudes of the female dancers at Gades, described by

Martial and Juvenal, and those of the Egyptian public singing girls, called *Ghawazee*, exert an influence over the passions, not only for the spectators, but for themselves. Some dances consist of motions calculated to excite an amorous, some a martial spirit. The latter are the chief favourites of barbarous, the former of more polished nations; and without fear of giving offence, we may be permitted to rank the waltz among the physiologically erotic species of dancing, although we do not quite agree with Byron in unconditionally reprobating its introduction amongst the English. Again, among the ancients, the value of forms in encouraging feelings of devotion or respect, seems to have been fully understood, and certain postures were accordingly scrupulously enforced in the ceremonies of religious worship, or in the respect paid to kings and princes. Hence the different values attached in various parts of the world to prostrations and genuflexions, when a subject approaches his sovereign; matters which the unthinking regard as mere idle ceremonies, but which the physiologist must consider as founded on the fact, that these positions do actually increase the awe felt on these occasions. The priests and priestesses most celebrated among the ancients never thought themselves inspired, never ventured to utter oracles, even at Delphi, until they had worked themselves into a frenzy by a quick succession of forced attitudes and grimaces.—*Dublin Medical Journal*.

The Family of Dr Gall.—During Mr Combe's residence at Heidelberg, in the summer of 1842, Mrs Combe wished to engage a young lady, accomplished in German, and who knew nothing of English, to assist her in the study of the former language. Miss Louise Thierry, about 18 years of age, a well educated, lady-like, and agreeable girl, was recommended to her, and engaged. She proved to be a grand-niece of Dr Gall—her grandmother having been his sister. On the father's side she is remotely of French extraction, and her head presents a medium type between the Celtic French and the German. She had often heard Dr Gall spoken of, but had read none of his works, and did not know whether he was a great man or not. She had heard more persons speak against his doctrines than in their favour, and could form no opinion of them herself. She understood that some members of Gall's family still reside at Tiefenbrunn, near Pforzheim, in the Grand Duchy of Baden, formerly Swabia. Mr C. read to her Dr Gall's description (given in his chapter on the organ of Veneration) of his brother, who had been bred a merchant, and subsequently became a clergyman, and asked her if she knew the facts to be correctly stated. She replied that she had heard that one of Dr Gall's brothers was a clergyman, but she knew nothing of his history. Mr C. told her that the day would come, when it would be regarded as a distinction in Germany to be descended from the family of Gall, and that she should make herself acquainted with his works.

Persecution for Opinion.—It is no sophistical assertion to maintain, that, amidst all our boasted illumination, the principle of persecution, however formally rejected in theory, is upheld in practice in all its pristine authority; that, being brought home to every man's door, and exerted on every petty occasion, there is as little real freedom allowed to unpopular thinking as in old times, when the trade of persecution was exclusively committed to the Ecclesiastical Courts and Star Chambers. We have neither space nor disposition to demonstrate this odious truth by example. The fact is too much of a noon-day sun splendour to require such illustration; and it is enough to point to the state of parties in this country, and to the leaven of religious intolerance that has festered them into their dangerous fermentation. At no period of our domestic history was caution more

necessary in the assertion of individual opinion ; at no time was the face of science cloaked by more conventional plausibilities, or disfigured by more illogical concessions to dominant presumption.—*Athenæum*.

Books Received.—British and Foreign Medical Review, Oct. 1843.—Medico-Chirurgical Review, Oct. 1843.—Statistics of Bethlem Hospital, with Remarks on Insanity. By John Webster, M.D. From 26th vol. of Medico-Chirurgical Transactions. 8vo, pp. 45.—Case of Paralysis, without Loss of Sensation, from Disease of the Cervical Medulla. By John Webster, M.D. From same volume. 8vo, pp. 18.—The Phrenological Theory of the Treatment of Criminals defended, in a Letter to John Forbes, Esq., M.D., &c., Editor of the British and Foreign Medical Review. By M. B. Sampson. London: S. Highley. 8vo, pp. 20.—The Principles of Physiology applied to the Preservation of Health, and to the Improvement of Physical and Mental Education. By Andrew Combe, M.D. The People's Edition ; being the 12th. Royal 8vo, pp. 108. Edinburgh: MacLachlan, Stewart, & Co.; London, Simpkin, Marshall, & Co.—Matrimony; or Phrenology and Physiology applied to the Selection of Companions for Life. By O. S. Fowler. London: G. Berger. 8vo, pp. 56. Reprinted from the 2d American edition.—The Phrenological Library, Parts I., II., and III.; Gall on the Functions of the Brain. London: G. Berger. 8vo.—The People's Phrenological Journal, Parts VIII., IX., and X., for Oct., Nov., and Dec. 1843; also Nos. 1, 2, 3, and 4 of the New Series. London: G. Berger. Royal 8vo.—The Illustrated Phrenological Chart. London: G. Berger.—Theory of Heat and of the Vital Principle. By Arthur Trevelyan.—The Phrenological Almanac for 1844. Glasgow: J. & G. Goyder. 8v o.—Outlines of Phrenology. By Dr Spurzheim. Royal 8vo. Glasgow: J. & G. Goyder, 1843.—The Medical Times, weekly, except No. 220.—American Phrenological Journal for June, July, and August 1843.—Zeitschrift für Phrenologie, Nos. II. and III.

Newspapers Received.—Sheffield Independent, Oct. 7, 28.—Wolverhampton Chronicle, Nov. 1, Dec. 6.—Glasgow Argus, Nov. 9.—Derby Reporter, Nov. 10.—Hampshire Telegraph, Nov. 20.—Manchester Guardian, Nov. 22, Dec. 20.—Londonderry Sentinel, Dec. 2.—Boston (U. S.) Post, Nov. 23.—Worcestershire Chronicle, Dec. 13.

To Correspondents.—The translations sent by Mr Noel shall be inserted.—Mr Bally's communication has been received.—H. G. is thanked for his references to several books.—We wrote to Dr Otto and Mr Von Struve on 25th October.—Dr A. Combe is wintering in Madeira, where he arrived on 21st November.

Communications for the Editor (prepaid) may be addressed to Mr ROBERT COX, 25 Rutland Street, Edinburgh. Books or parcels, too heavy for the post, may be left (free of expense) with the London publishers, Messrs Simpkin, Marshall, & Co., Stationers' Hall Court.—Articles intended for the next following Number must always be with the Editor six weeks before the day of publication. Communications for the section of "INTELLIGENCE," and also Advertisements, should be in hand at least a fortnight before the same day. Charges for advertising:—Eight lines, 6s.; twelve lines, 7s. 6d.; every additional line, 6d.; half a page, 14s.; a whole page, 25s. Advertisements may be sent to the publishers in Edinburgh or London.

EDINBURGH, 1st January 1844.

THE
PHRENOLOGICAL JOURNAL.

No. LXXIX.

APRIL, 1844.

NEW SERIES.—No. XXVI.

L. MISCELLANEOUS PAPERS.

**I. *On the Application of Phrenology to the Fine Arts.* By
GEORGE COMBE.**

“ The artist ought not to be wholly unacquainted with that part of philosophy which gives an insight into human nature, and relates to the manners, characters, passions, and affections. He ought to know *something* concerning the mind, as well as a *great deal* concerning the body, of man.”

SIR JOSHUA REYNOLDS, *Discourse VII.*

TO THE EDITOR OF THE PHRENOLOGICAL JOURNAL.

ROME, 2d January 1844.

SIR,—In the course of visiting the various collections of pictures and statues, ancient and modern, which present one of the greatest attractions to the traveller in Italy, I have sought, with avidity and humility, for criticisms by connoisseurs and masters in art, to form and guide my own judgment concerning the merits of the works which I have examined; and I have found abundance of *opinions*, forcibly and often eloquently expressed, concerning the excellencies and defects of particular productions, but I have discovered few books in which *reasons* are given, or principles stated, for the judgments pronounced. In short, many of the critics have recorded little more than the *impressions* which the pictures and statues have made on their own minds. When they have been men of high natural endowments, and enjoyed the advantages of cultivation, their *dicta* have, indeed, been in general sound and valuable; but, nevertheless, they are *mere opinions* still, and are appreciated differently by different minds.

VOL. XVII.—N. S. NO. XXVI.—APRIL 1844.

H

The Germans have infused more philosophy into their dissertations on art than any other people. In Kugler's works, and in the productions of other German authors, *reasons* are more frequently stated, *why* such and such judgments are formed, than we find in the English books: but even in the German, few first principles are correctly traced to universal facts or laws of human nature; in other words, few *scientific* foundations are laid for the superstructure of opinion presented to the reader.

These remarks will not be new to any one conversant with criticisms on art; and the cause of this condition of the philosophy of painting and sculpture will readily occur to the phrenologist. Painting and sculpture have for their objects the representation, by means of form and colour, of the most interesting and beautiful productions of Nature, invested with their highest attributes. Until the objects themselves be scientifically understood, the science of representing them must necessarily remain imperfect. The human mind and body are the noblest works of God with which the painter and sculptor have to deal; and while the relations between the one and the other—between, for example, mental endowment and corporeal form and expression—are not *scientifically* ascertained, the rules of art, and the principles of judging of art, must be, to a corresponding extent, empirical. Phrenology, or the physiology of the brain, and general Physiology, by developing the science of human nature, and especially the relations subsisting between particular mental endowments and particular forms, expressions, and qualities of body, should furnish one grand element towards constructing a philosophy of art: to produce such a work, however, it is equally necessary that the author should possess a natural taste for the fine arts, cultivated by extensive observation and study. *When* an individual thus qualified may appear and occupy the field, it is impossible to conjecture; but in the mean time, in the absence of better guides, I may be permitted to lay before your readers such ideas as have occurred to my own mind on the subject; premising that I put forth no pretensions to critical skill in the arts, but write merely from impressions made on my own faculties, guided and corrected by the principles which I have learned in the school of Phrenology.

The natural gifts which are necessary to constitute an eminent artist may be described as follows. The first is *temperament*, or *quality* of brain. Activity, sensibility, and fineness must be combined to lay the foundation of success; and I observe that the great masters in painting and sculpture have all been distinguished for a high nervous, or nervous-bilious,

or nervous-sanguine, temperament : very rarely is a nervous-lymphatic temperament met with among them, and I do not recollect to have observed any one in whom the nervous was not present in a large proportion.* I may mention, that, in the various collections of paintings in Italy, we find numerous portraits of almost all the distinguished artists, most of them originals ; and in Florence, in particular, a large *salon* is hung all round with such portraits. If all of these were faithful likenesses, it would be easy to describe the temperaments with certainty ; but, unfortunately, I have seen several pictures, recorded in the catalogues as portraits even of eminent men, which differed so much from each other, that it is difficult to believe them to have been painted from the same individual. This is vexatious and disappointing to the inquirer after exact knowledge ; but as it is an evil irremediable with respect to the dead, I have endeavoured to diminish it as much as possible, by founding my observations only on the best authenticated likenesses, or on those which may be presumed to be most correct, from the fact of most of the copies coinciding in the great lineaments of the head and countenance.

The second requisite is a *full size of brain*. If this be wanting, there is a deficiency in depth of conception and strength of representation, for which nothing can compensate. There are numerous instances in which the individual has possessed the temperament of genius, and even a combination of cerebral organs adapted to art, but in which the *size* of the organs has been so deficient, that it was not adequate to reach vigour and impressiveness. Such artists are haunted by a *demon* of genius : Their fine and active temperaments give them some inspirations ; they appreciate art, and are able, to a certain extent, to body forth, in their own minds, original conceptions of beautiful figures and groups ; but, owing to the smallness of their brains, there is a feebleness in the execution which mars their best efforts. It is only when large size is added to superior temperament that first-rate talent is produced. When large size of brain, and the particular combination of organs which gives a talent for art, are combined with only a second-rate temperament or quality of brain, the individual may be an excellent *copyist* of the pictures of the great masters, but no great artist himself. His brain will be too inactive to *originate* works worthy of distinction ; while it may be sufficiently susceptible to be impressed by, and sufficiently powerful to reproduce, those of others. In all the large galleries of art, there are individuals constantly employed in copying the great pictures ; and I have seen some of their

* The temperaments are described in my elementary works on Phrenology.

productions so admirable, that, when time has mellowed the colours, it will be difficult for ordinary connoisseurs to distinguish the copies from the originals. Only a higher temperament was wanting to render such men great original geniuses.

The *third* endowment necessary to success in art, is a *favourable combination of the cerebral organs*. Certain organs, namely, Form, Size, Colouring, Constructiveness, and Imitation, combined with Secretiveness and Ideality, may be regarded as fundamental requisites, without a considerable endowment of which, even moderate success in painting or statuary will be unattainable. But much more is wanting to constitute a great master. Painting and sculpture are arts of representation, and, in order to represent well, the artist must first be capable of feeling and thinking powerfully. The more extensive and varied his powers of feeling and thinking are (the other conditions before mentioned existing), the wider will be his range of subjects, and the more variety and depth will he be able to infuse into his productions. For example; an artist deficient in the animal propensities, could not vigorously embody the excitement and ardour of battle,—nor the excruciating tortures endured by dying martyrs,—nor the fell purpose of the midnight assassin; neither could the artist deficient in the moral and religious organs realize the soft and elevating emotions of the saint; nor could one deficient in reflecting intellect give logical consistency to his emotions and ideas, or represent characters bearing on their forms the stamp of Nature's noblest gifts, profound and comprehensive reflection.

The more *harmonious* in point of relative size the combination of the organs is, the more perfect will be the artist's taste, the more sound his judgment, and the more generally will his works speak home to the feelings and taste of the best constituted and best cultivated minds.* If any of the organs of emotion or of the higher intellectual faculties be deficient, the whole range of feeling and of thought embraced by them will be feeble: if any of these be in excess, they will impress their own character and peculiarities too strongly on the artist's works. Thus, an artist with a small organ of Amativeness could not successfully communicate to a statue or painting of Venus those indescribable but generally understood qualities which render such a work interesting to this feeling in the spectator. If the cerebellum were too large, he would, unconsciously, infuse into his Venus so much of these qualities as to render it offensive to purer and better balanced minds.

* See *System of Phrenology*, 5th edition, vol. ii. pp. 281, 301, and 235.

These are the *natural* gifts which appear to me to be necessary to success in art; next come practical skill and acquired knowledge. Practical skill can be gained only by engaging in the manipulation of the art under the guidance of the best teachers: it is more difficult to acquire sound and valuable elements of knowledge. The ordinary elementary works on art teach the rules of *drawing* and the principles of perspective, which last are scientifically ascertained; also the rules of colouring, including the harmonies and discords of tints (which rules likewise rest on a solid basis), and the management of lights and shadows. They teach, moreover, the anatomy of the body, and certain practical rules concerning the proportions which one part of the figure should bear to another, and the relations between certain proportions and certain characters; that an athlete, for example, should have a large chest and strong limbs; and that an eminently intellectual character should have a high forehead. Finally, they teach the rules of composition, or the arranging of figures in groups, in such a manner as to give harmony to details, and to bring forth unity of interest and effect out of variety of parts. Something continues wanting to give scientific precision to much of this information, and to carry the rules of art to a still higher point of practical utility. I offer only such hints towards supplying the desideratum as have occurred to me here, in Rome; leaving to more erudite and accomplished minds the task of adding more valuable contributions to the general stock of instruction.

First, then, in regard to *the head*. Artists will find, by observation, that the character of the head depends chiefly on the following developments. If the head is too small, idiocy is an *invariable* accompaniment. In proportion as they increase the size of the head up to a certain point, they will increase the expression of mental power; but when they go beyond this point, they will introduce the idea of disease, viz., of hydrocephalus or cretinism.



Idiot, aged 20.

Mental power, however, is a *general* expression, and corresponds to *general* size; to express great power in *particular* qualities of mind, the artist must enlarge *particular* parts of the head. Strong animal feelings, that is, great enjoyment in animal existence, delight in the pleasures of the table, irascibility and courage, are indicated by the head being broad over

the ears, and by the opening of the ear being low, and far forwards. To express feebleness in these qualities, the base must be narrow, and the *opening* of the ear high and far back. The organs which manifest these emotions lie on the base of the skull, part of them above, part of them immediately before, and the rest behind, the ear; and the emotions are strong in proportion to the size of the parts. Large size of these organs is indicated *both* by breadth of the head, and by lowness of the ear. When each of these characters is present (the temperament being active), the power of the propensities reaches its acmé. In Rome, I saw a young woman sitting as a model to an artist, on account of her beautiful forms; and I remarked that her head was large and broad over the ears, and that the left ear was uncommonly low (below the lower end of the nose), and the right, although considerably higher, still so low as to indicate great combative and destructive vigour. I was then told that she was so violent that she was constantly getting into quarrels, and had just been liberated from prison, to which she had been sentenced on account of an outrage committed on a priest. The development of her moral and intellectual organs was not large in proportion to that of her propensities. I could give many other examples; but I am not now *proving* any proposition—I am merely stating views for proof or refutation by more able observers. I shall, therefore, notice only one other illustration.

In the Imperial and Royal Gallery at Florence (Venetian School, second salon), there is a beautiful portrait, by Titian, of a woman in a white chemise (an upright figure, including the bust and head), with flowers in her left hand, commonly called Flora. The ear is high in the head, indicating a moderate development of the organs before mentioned, the moral organs are well developed, and the expression of the features is soft, mild, and refined. An artist had just finished an admirable copy; nothing could be more perfectly like the original—with one exception: he had placed the ear a little too low, and thereby unconsciously introduced discord between the qualities indicated by the brain and those embodied in every other part of the figure.

To express *strong domestic affections*, the posterior lobe of the brain must be enlarged; while, to represent strong sexual passion, the neck behind the ears must be thickened—a form which is given by a large development of the cerebellum, the organ of the amative propensity. In Rome, I saw a lovely group of statuary, representing Hero embracing Leander just as he had emerged from the Hellespont. Her figure and attitude were admirable, and expressed beauty and attachment

in the highest degree; but her head, the back of which was turned to the spectator, shewed an enormous development of Philoprogenitiveness (increased by the style of hairdressing), combined with a very large Destructiveness, qualities which had no direct connection with the action; a *deficient Adhesiveness*, the very quality which all her action expressed *strongly*; and also deficient Cautiousness, Conscientiousness, and Firmness, indicating an inconsiderate, unfaithful, and unsteady character, the very reverse of the attributes manifested in her conduct. To the spectator who does not understand the meaning of the forms and sizes of particular parts of the head, this is no blemish; but to one who does, it injures the harmony of the group, and is felt to be as wide a departure from nature as if an artist should paint Venus with a squint, or Adonis with a twisted nose. In Raphael's picture of "The Espousal of the Virgin," in the Brera Gallery at Milan, the Virgin is painted with a beautiful pure female head. By very correct drawing and delicate shading, the organs of Philoprogenitiveness and Adhesiveness are represented largely developed, while Amativeness is very moderate in size. A young artist whom I saw copying the picture, apparently quite unaware that the proportions of these parts conveyed any specific meaning, had, by a few careless lines in drawing, and equal carelessness in shading, increased Amativeness so as to change the character. Raphael's forms were consistent with the ideas of virginity and purity; those substituted in the copy were so expressive of strong sexual passion, that it would be difficult to believe in her saintliness character. Again, the expression of the countenance in Raphael's picture was pure, and in harmony with the head. The young artist copied the countenance correctly, but its expression contradicted the form which he had given to the brain.

To represent an ambitious character—a lover of power and fame—it is necessary to enlarge the upper and posterior regions of the head, the situation of the organs of Self-Esteem and Love of Approbation. In a meek and modest character, these should be diminished, and the organs of Benevolence and Veneration enlarged.*

To portray the qualities of acquisitiveness and reserve, which, in an exalted degree of intensity, become avarice and cunning, the middle of the lateral portions of the head should be increased in dimensions. In a character remarkable for regardlessness of property and destitute of reserve, this region

* Compare Dr Spurzheim's *Phrenology in Connexion with the Study of Physiology*, Pl. xxviii. figs. 1 and 2, and Pl. xxix. figs. 1, 2, 3, 4, 5, 6, with Pl. x. fig. 2, and Pl. xv. fig. 2.

should be flat, and the breadth of the head here should be diminished. Fig. 1 represents these organs small, and Fig. 2

Fig. 1. CINGALESE.

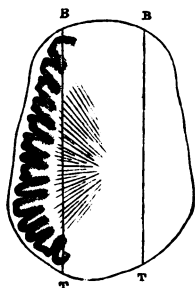
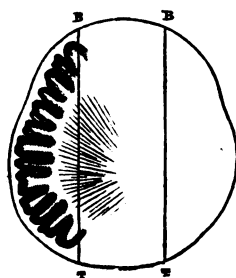


Fig. 2. GOTTFRIED.



exhibits them large. But the most important departments of the brain remain to be noticed, namely, those which represent moral and intellectual power.

To represent strong Benevolence, Veneration, Hope, Conscientiousness, and Firmness, the top of the head, or coronal region, must be drawn high and arched; and if we desire to add to these the qualities of prudence (Cautiousness) and strong sensibility to the sublime and beautiful (Wonder and Ideality), this region must be extended in breadth as well as in height. There is a rule of art, borrowed from the Greek statues, for representing a high character, namely, to draw as much head above the axis of the eyes, as there is face below that point; but this affords an approximation only, and not a perfectly correct guide to nature. The head may be high above the eyes, from a great development of the intellectual organs, without a corresponding development of Benevolence; or it may be high above the eyes from a great development of Benevolence and Imitation, without a corresponding development of the intellectual organs. The line to which the hair descends on the forehead does not form, and therefore affords no certain indication of, the boundary between the organs of intellect and those of the moral sentiments; I have seen the hair, in some instances, descend as low as Causality, and in other cases leave a portion of Benevolence uncovered. Besides, as age advances, the hair generally falls off first from the forehead, and changes the boundary-line between the covered and uncovered parts without changing the character of the brain or mind. Again, a head may be high above the ear in the posterior coronal region, from a great development of Destructiveness, Secretiveness, and Cautiousness, without Conscientiousness and Firmness being large. This is apparent

in the figure of Hare (see p. 122), in which the distance from the ear to the upper line of the head is very considerable, but the portion really belonging to the moral faculties is small. Or, the brain may be high in that region *from* a great development of the moral organs, as in the Swiss skull which will be immediately introduced. The true rule for the artist to follow in representing high moral qualities, is to enlarge the height and breadth of that part which lies above a line drawn round the head, and passing through the centres of ossification of the frontal and of the parietal bones, corresponding to the centres of the organs of Cautiousness and Causality in the phrenological bust. The three following figures will render these observations plain. Figure 3 represents a negro skull, and the anterior asterisk is the centre of ossification of the frontal bone, corresponding to the centre of Causality; the posterior is that of the parietal bone, corresponding to the centre of Cautiousness. A line drawn round the head, passing through these two points, would leave all the moral region (with slight exceptions mentioned in the elementary works on Phrenology) above it.

Fig. 3. NEGRO SKULL.

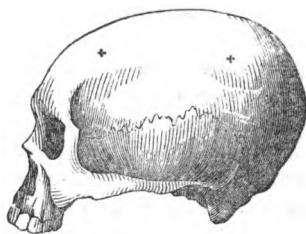


Fig. 4. SANDWICH ISLANDER.

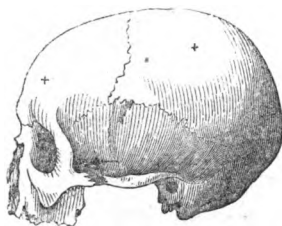


Fig. 5. SWISS SKULL.

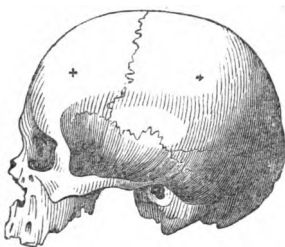


Figure 4 represents the skull of a Sandwich Islander, in which the moral region is a little larger in proportion to the animal than in the Negro; while Figure 5 is the skull of a Swiss, in which the moral region is still larger in proportion to the other than in Figure 4.

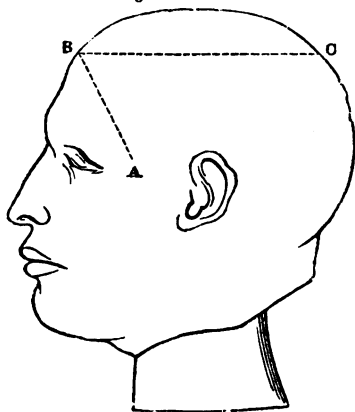
The student of art is requested to observe that these points are not arbitrary marks invented by phrenologists, but real centres of ossification, easily distinguishable in the skull, and recognisable by the hand in most living individuals. The fact that the moral organs lie above them is established by obser-

vation. I shall afterwards shew to what extent this truth has been recognised by the great masters in sculpture and painting.

The intellectual faculties are manifested by a portion of the anterior lobe of the brain, which has three dimensions that concern the artist,—length from front to back, height, and breadth. The lower surface of this lobe covers exactly the super-orbital bones, or those thin osseous plates which are over the eye-balls. If these plates are long from front to back, the anterior lobe is long; if short, it is short. The *power* of the intellect depends greatly on the length of this line. To discover the position of the posterior edge of the plate, it is necessary, in the living subject, to feel for the most prominent point of the zygomatic arch; which is generally found where the two bones that constitute the arch meet. If we draw a perpendicular line upwards from that point (keeping the axis of the eye parallel with the horizon), and a horizontal line from the upper edge of the socket of the eye-ball backwards till it meets the perpendicular line; and if we then, from the point where these lines meet, draw a line to the anterior asterisk, the triangle thus formed will inclose the chief portion of the intellectual region of the brain. In William Hare, the portion before

Fig. 7. MELANTHON.

Fig. 6. HARE.



A B represents the intellectual organs; that above the line B C, the moral region. The parts behind A B and below B C, represent the organs common to man and the lower animals. In Hare, the moral and intellectual regions are small, and the

animal region very large. He assisted in the murder of sixteen human beings for the purpose of selling their dead bodies to the professors of anatomy for dissection. Melancthon, in whom these proportions are reversed, was the highly intellectual, moral, religious, and accomplished associate of Luther, in effecting the Reformation in Germany.

I must apologise to the readers of your Journal for introducing these details. To them they are the mere rudiments of Phrenology, but to artists in general many of them are unknown. It is 75 years, this very day, since Sir Joshua Reynolds, in his discourse delivered at the opening of the Royal Academy, used these remarkable words: "I must submit one thing more to the consideration of the visitors, which appears to me a matter of very great consequence, and the omission of which I think a principal defect in the method of education pursued in all the academies I have ever visited. The error I mean is, that the students never draw exactly from the living models which they have before them. It is not indeed their intention; nor are they directed to do it. Their drawings resemble the model only in the attitude. *They change the form according to their vague and uncertain ideas of beauty, and make a drawing rather of what they think the figure ought to be than of what it appears.*" In regard to drawing and modelling the head, in so far as it is covered with the hair, this error continues uncorrected, except by artists who have studied Phrenology, or been rendered alive, by the discussions which it has excited, to the importance of the forms of the head. Sir Thomas Lawrence painted King George IV. for the Pope, and the ear is placed in a position that I have seen only in the heads of executed murderers; Canova has modelled the heads of eminent public characters in forms that are in direct contradiction to their dispositions; and Chantrey has committed the same fault. I see the error repeated by men of great talents, in this city, every day. There can be only one cause of this mistake; they do not understand the meaning of the forms.

It is generally admitted, in treatises on art, that large lungs, indicated by an expanded chest, are the natural associates of powerful muscular limbs; and that, on the other hand, an abdomen of ample rotundity and prominence, combined with a chest of moderate dimensions, is generally accompanied by a fat, flabby, and ill-proportioned muscular system. The physiological reasons for these facts are obvious. Large lungs vivify the blood, from which the bones and muscles are formed; and its healthy condition naturally lays the foundation of

strength and vivacity, not only in these, but in the whole organism. The abdominal viscera, again, are the organs of nutrition; and if they be too powerful, in relation to the vivifying organs, they will produce obesity of person, shapeless masses of flesh, destitute at once of grace and energy. Farther, it is allowed that there is a certain proportion between the size of the head and the stature of the person, any wide departure from which is a deviation from nature. Now, I go a step further, and observe that there is a relation *between the size of particular regions of the brain, and particular characters of the body at large*. I shall endeavour to explain how this takes place.

The spinal marrow consists of two double columns; the two anterior columns giving forth the nerves of voluntary motion, while the two posterior columns give forth the nerves of sensation to all parts of the body below the head. The anterior lobe of the brain manifests intellect, the chief element of will, and the two columns for motion are placed in direct communication with it, by means of numerous nervous fibres, which have their anterior ends in the frontal lobe, and their posterior ends in these anterior columns. It is easy to conceive that a greater or less perfect development and condition of the nerves of motion may influence the character (by which I mean the form and texture) of the muscles and skin which they are destined to move; and it is equally easy to comprehend how a greater or less development of the frontal lobe, in which voluntary motion arises, and from which the impulse is sent directly to these nerves, causing them to act in all parts of the body, may also affect the character of the same parts. The deep furrows in the countenance, produced by intense thought, afford an example of the influence of the anterior lobe on the face. These connections will be rendered more intelligible by the following figures.

Fig. 8.

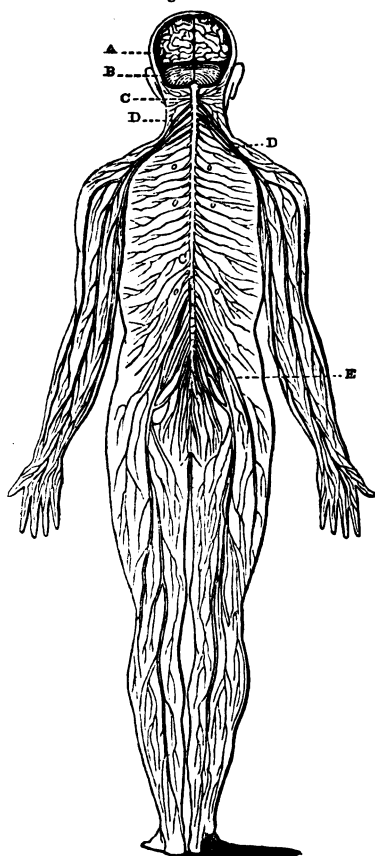
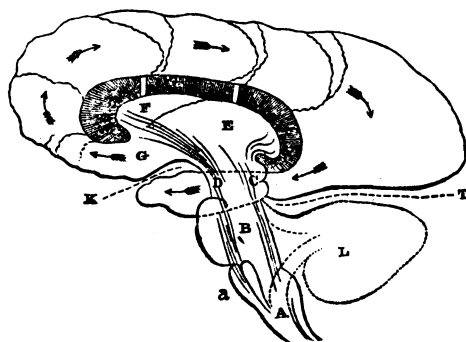
**EXPLANATION.**

Figure 8 shews the connection of the nerves and spinal marrow with the brain. A is the brain, exposed by the removal of the back part of the skull. B the cerebellum. C C the spinal marrow. D D the nerves proceeding from the spinal marrow to the arms. E the nerves proceeding to the lower extremities. o o o o the nerves supplying the thorax and abdomen. Although this figure has no pretensions to minute anatomical accuracy, it furnishes a good general view of the connection of the different parts of the nervous system.

Figure 9 is copied, with some unimportant additions, from Mr Solly's work on the human brain, p. 180. A the medulla oblongata, form-

Fig. 9.



ing, as it were, the top of the spinal marrow. *a* the corpus pyramidale. *B*, pons Varolii. *C*, tubercula quadrigemina, with the fibres of the *posterior* columns passing in front of them. *D*, crus cerebri, with some of the fibres of the *anterior* columns. *E*, the thalamus nervi optici of one side, or posterior striated body. *F*, the anterior corpus striatum. *G*, substance of the hemisphere springing out from the front of the anterior corpus striatum. *H*, space between the corpus striatum and hemispheres, caused, in this figure, by the introduction of a small piece of wood *I*, the two surfaces being in contact in the natural state. *K*, fissura Sylvii. *L*, the cerebellum. *T*, the tentorium, separating the cerebellum from the brain.

Although the connections which I have mentioned are the most direct and influential, yet there are connections also between the middle and posterior lobes, or the organs of the feelings and desires, and the nerves of motion, by means of which strong affections express themselves, through the medium of the muscles, *instinctively*, without the intervention of the will: anger, for instance, produces certain instinctive motions in the muscles of the face and body, which we designate as the natural language of this passion; pride produces a different kind of instinctive motions; and vanity a third kind; all easily recognised. Farther, there is such a connection between the anterior lobe and the nerves of sensation, that sensation can act directly on the will, but cannot be commanded by it in return. The nerves of sensation, for instance, transmit impressions from the extremities and surfaces of the body upwards and inwards to the brain, but do not transmit impressions outwards; while the nerves of voluntary motion transmit impressions from the brain outwards, but communicate none inwards and upwards.

There is a connection also, by means of nerves, between the organs of respiration and digestion contained in the chest and abdomen, and the brain; and the influence of the brain is necessary to their action and development. The special connection of these nerves with the base of the middle lobe of the brain, has not yet been distinctly traced, but certain experiments have proved that it exists. For example, when Flourens removed all the superior portions of the brain, but allowed the base to remain uninjured, in some of the lower animals, they seemed like creatures asleep, destitute of consciousness and will; but they breathed and digested. When the base of the brain was removed, they instantly died.

I hope that the artist will not now regard the proposition as extravagant, that there is a relation in nature between the size of different parts of the brain and particular characters of the body; and that he will allow me to proceed to explain some of them at greater length. As the power of action of *all the vital organs*, other conditions being equal, is in pro-

portion to their size, and as each communicates an influence, corresponding to its own character, to the general organism, it follows that that corporeal frame in which *all* the vital organs are most harmoniously developed, will be most favourably constituted equally for *health, vigour, and beauty*. Accordingly, it will be found, as a general rule, that when the whole head is of ample size (the moral and intellectual regions predominating), and when the chest and abdomen also are well and proportionately developed, the limbs will be most beautifully formed, the natural attitudes and motions most graceful, the mind and body most active, and the health most complete; in short, the man will be in the most perfect state. Of all these three classes of organs, the brain, perhaps, exerts the greatest influence over the others; and the knowledge of its influence is, therefore, important to the artist. If, for example, the anterior lobe is very large, it gives an intellectual expression to the whole figure. Who has not recognised the expression of great intellect in those figures of Napoleon, in which he is represented with his *back* to the spectator, looking on the sea from a rock in St Helena? If the anterior lobe is very small, this intellectual expression is wanting. Who fails to recognise the idiot even by his slouching back and ungainly motions, without needing to look in his face? I venture to assure the artist, that when the coronal or moral region of the head is predominantly developed, the whole body, and especially the countenance, manifests a beaming, lively, easy, graceful goodness, which impresses the beholder with pleasurable emotions; and that when this region is small, and the basilar or animal region predominates, the expression of the countenance, and character of the whole body, in regard to both forms and motions, are low, ungraceful, dark, and disagreeable. These remarks will be best illustrated by examples.

In the Palazzo adjoining the "Basilica di S. Giovanni in Laterano," in Rome, there is a large floor composed of ancient mosaics, removed from the Baths of Caracalla. They represent a number of gladiators about the size of life. In the figures, the size of the brain, regarded in the mass, is large, or at least full; but the coronal or moral region in all of them is excessively deficient, the head is extremely broad across the ears, and in the greater part the forehead is short, narrow, and low. In only one did I observe the anterior lobe large; but in him the coronal region is extraordinarily flat, and the base is large. In all of them, too, the lungs are large, and the abdomen of fair magnitude, neither too large nor too small. Here, then, the aggregate size of the brain is ample, the lungs are

well developed, and the abdomen is in just proportion : What is wanting to the completeness of the figure ? Moral and intellectual organs are wanting in the brain, and the animal region is in excess. What is the effect on the character of the body ? Let the mosaics answer. In all the figures the limbs are strong but clumsy ; they are coarse in texture, and ungraceful in form and proportions : and the features of the face, without being distorted by passion, or disfigured by constrained attitudes, are unharmonious in their lines, and low and even odious in expression. The figures are destitute of drapery, so that they can be scrutinized, and their different lineaments compared. As works of art, they are very humble in their pretensions ; but, from the individuality of their forms, features, and expressions, they appear to be portraits of individual men. It is impossible for the phrenologist who reads their dispositions in their forms to regard them without disgust. Their brains proclaim sensual and ferocious propensities, with a lamentable deficiency in the moral and intellectual qualities ; and their whole frames express the same characters.

With some exceptions, the great masters in art, in ancient and modern times, appear to have perceived the relations which I am now illustrating. In the Royal Gallery at Florence, for instance, there is a Bacchus by Rubens, in which they are well observed. Bacchus is the personification of unthinking jollity ; and the painter has bestowed on him a brain rather under the average in general size, in proportion to his body. As the drunken god does not reflect much, he has given him a small forehead, and placed the deficiency chiefly in the reflecting region ; but as Bacchus greatly enjoys the pleasures of the table, the artist has very considerably endowed him with a broad head in the region of Alimentiveness and the Love of Life, while his moral organs are very moderate in size. How has he formed the remainder of the figure ? He has given to it ample lungs, and a large abdomen. Here, then, as in the former instance, all the vital organs necessary for a perfect development of the human figure are present, except the brain in sufficient size, and the deficiency there appears chiefly in the moral and intellectual organs. The differences between Bacchus and the gladiators are these : in Bacchus, the general size of the brain is less than in the gladiators, indicating less general mental power ; in him the moral region, although low, is not *so deficient* as in the gladiators, and his thirst is not for blood, but only for wine ; in him the abdomen is larger, in proportion to the brain and thorax, than in them, indicating in him greater nutritive than mental and

muscular power. In exact accordance with all these qualities, Rubens has bestowed on Bacchus fat flabby limbs, and a portly figure, and deprived him of all pretensions to deep thought, elegance, and grace. Nevertheless, he has refined the forms and the expression of the countenance as much as was compatible with the character, and, on the whole, produced as pleasing a representation of sensual enjoyment as genius could accomplish.

The next example is furnished by the Theban Hercules, an ancient semi-colossal statue in the "Museo Chiaramonti," in the Vatican, Rome, No. 294. Hercules is the representative of great physical strength, employed in arduous labours, and generally for benign purposes. Hercules is no toper; he is not addicted to *gourmanderie*; he is not cruel or ferocious; yet he is not intellectual, and he is passively rather than actively moral, except in the aim of his feats of strength. How, then, has the ancient artist formed him? He has conferred on him a large chest, with an ample but firm abdomen, and a head rather below average in general size, in proportion to the body. These are the proportions which produce physical strength *plus*, and mental power *minus*. How has he shaped the head? He has bestowed a brain of average breadth over the ears, and pretty large behind, indicating animal propensity sufficient for health, strength, and physical enjoyment, but not so great as to produce predominating sensuality or ferocity. The anterior lobe is well developed in the lower ridge and in the middle perpendicular region, a combination of intellectual organs adapted to observation and practical action; but it is palpably deficient in Ideality, Wonder, and Wit, sentiments of elevation, refinement, and gaiety. The coronal or moral region is of an average size in proportion to the other parts. The countenance exhibits a healthy, easy, good-natured, yet grave expression, harmonizing admirably with the physiological effects which would follow from his peculiar combination of brain, thorax, and abdomen. How do the limbs correspond with this character? They are large, strong, and well proportioned; but they are neither fine in texture, nor highly graceful in form. The statue was found in 1802 "nella Campagna dell'Oriole," and an arm and the right leg were restored by Alessandro d'Este, after a model by Canova. It is an admirable personification of the man of bone and muscle, of activity and strength, but who is neither a sensualist nor a savage.

In the "Stanza di Giove, No. 111," of the Royal Gallery in Florence, is Salvator Rosa's celebrated picture of the "Conspiracy of Catiline." History informs us that Catiline and his associates were men weak in intellect, strong in animal

passion, and sadly deficient in the moral qualities. How has the painter represented their heads? *There is not a well developed anterior lobe or coronal region in the whole group!* Their heads, too, are *not large*, the animal organs alone being ample; a configuration corresponding exactly with the characters historically ascribed to the men. As they wear drapery, there is no opportunity of carrying the criticism farther. An artist had nearly completed an excellent copy. In composition, the original picture is regarded as one of great merit.

An example of a higher style of character than any of these may now be mentioned.

In the "Museo Chiaramonti," near Hercules, sits Lysias, the Greek orator, "who," in the words of the catalogue, "in profound acumen of thought, was judged to be unrivalled." He is of the size of life, and some other representations of him give authenticity to this statue, which is unquestionably ancient. His head is of full size, and graceful; his anterior lobe is long, broad, and high, and particularly large in the middle perpendicular region, which gives readiness of perception and promptitude of thought, and fits the mind for action. The ear is high and far back, indicating moderate sensual propensities. The coronal region, which is a little bald, is well developed. The base and posterior lobe are fairly, but not too largely, developed. This combination expresses great intellectual power, amiable dispositions, sound judgment, and as much energy of the animal propensities as is necessary to give effect to these attributes. How is the body formed? The lungs are moderately-well developed, and the abdomen also is moderate; both are less than the average in proportion to the anterior lobe of the brain. He is a short man; his limbs are rather small, and in youth they would be fine in texture and form. The countenance expresses deep thought, with that slight degree of *mal-aisance* which generally characterizes men in whom the anterior lobe of the brain is large in proportion to the lungs. The harmony and grace of the whole statue must strike every cultivated mind.

If your space permitted, I could supply many other illustrations of the principles which I am now expounding, from the Greek statues in the Vatican; but I shall limit myself to a very few additional remarks. The Greek head, as represented in these works, differs widely from the ancient Roman head, as portrayed in the busts and statues of the emperors and of distinguished men. The Greek brain was not so large as the Roman, indicating less general mental power; but the moral and intellectual regions were considerably larger, in proportion to the animal region, bespeaking a greater susceptibility

of refinement and civilization, and also (if the foregoing principles are correct) a more beautiful and graceful development of bodily forms and proportions. These Greek works appear, in many instances, to represent individual nature;—of the highest order certainly, but still individual, and closely true to individual character. It is worthy of remark, also, that there is a palpable similarity, both in size and form, between the heads of the distinguished men in the Greek statues, and the highest specimens of the ancient Greek skulls in the collection of the Phrenological Society of Edinburgh. History makes us aware that the Greeks surpassed the Romans in elegance and refinement, and that the bloody combats of gladiators were unknown among them as native sports. In accordance with the character of their heads, their great men stand before us in the Vatican, noble and graceful in attitude, chaste and expressive in the forms of their features, limbs, and trunks; slender, yet not feeble; and with drapery adjusted in exquisite harmony with all these attributes of mind and body.

On the other hand, the Roman heroes, sages, and emperors (I speak of their general type), have large heads, extremely broad in the base; large intellectual, generally moderate, and in some instances deficient, moral regions, with a powerful but low expression of countenance; limbs superior in magnitude, but inferior in grace and beauty, to those of the Greeks; and a general character that indicates strength of purpose and depth of intellect, but without the inspiration of high sentiments or noble aims.

It is difficult to account for the harmony of all the parts which pervades these works, except by supposing that the ancient artists, when they did not form portraits of individuals, selected models of the highest excellence, and faithfully adhered to their forms and proportions in all the details, correcting only individual defects, and this with a complete knowledge of the character of the subject in hand.

It would be easy to multiply examples of statues and pictures, in which the artist has bestowed forms of head, at variance at once with the expression of the countenance, with the dispositions, and with the character of the trunk and limbs of his figures; but as this is an invidious task, I shall mention only a few. In one of the galleries in Florence there is a picture of Lot holding a shell, into which one of his daughters is pouring wine, in order to make him drunk, for the purpose mentioned in Scripture, while the other daughter sits approving on the other side of her father. This whole transaction indicates dispositions of the lowest order; yet the painter (who is a distinguished artist, but whose name I unfortunately omitted

to write down, and have, in consequence, forgotten) has bestowed on Lot a beautiful moral and intellectual brain, moderate animal organs, and a corresponding expression of countenance. It is my firm belief that such an act as that to which the painter has here represented the prelude, *could not have been committed* by a human being endowed with such a brain; for this simple physiological reason:—before *that* intellectual and moral organization could have become so impaired in its functions by wine as to consent to such a deed (or rather to enact it automatically, for it never could consent), all power of muscular movement would have been suspended. Farther, the painter has enriched the heads of the two daughters with excellent moral and good intellectual organs, and represented them, in form and expression, as interesting, innocent, and graceful young women—I might almost say young ladies; for they are so modest in look, and so becoming in attitude and attire, that one would commend their governess for her good sense and correct taste in forming their habits. If the artist had been acquainted with the functions of the different parts of the brain, and the physiological, as well as moral and intellectual influences of these, he could not have fallen into such a series of errors. He has produced a really interesting picture, and it is necessary only to change the name of it, and to call it a Daughter refreshing her Father with wine after the fatigues of the day, to bring the subjects and the story into harmony with each other and with nature.

I have already alluded to a celebrated female model much spoken of by the artists here at present, and I now remark farther, that her head is large and broad over the ears; that the anterior moral and the upper intellectual organs are by no means large in proportion; but that Self-Esteem, Love of Approbation, and Firmness, are very large. Her temperament is nervous-bilious, and her bust is fine. The lines of her face are strongly marked and regular, and are of that character which is found in the Roman Minerva, and termed by many classical. The combination of cerebral organs here described gives great force of character, but accompanied by coarseness of feeling and irascibility of temper. It communicates the qualities of self-will and determination, and gives that proud bearing which, when accompanied, as in her, by strength of character, imparts a kind of Spartan dignity to the figure. The expression of her countenance, and of course the minute lines and forms of the features which produce that expression, are in perfect harmony with these mental qualities. I have seen three busts of her, modelled by different artists in Rome. One of them has taken only the general character of

her countenance, and changed both the head and features so extensively, that he has made rather an ideal figure than a likeness of the model; and, as this is perfectly allowable, I offer no criticism on his work. Another artist, however, has enlarged the reflecting organs and elevated the expression of the countenance, rendering it greatly more soft and gentle, but allowed the enormous Destructiveness (indicated by the low ear and great breadth of head) and the towering Self-Esteem and Firmness to remain in his bust exactly as they are in nature; while the third artist has added a little to the intellectual organs, and a considerable portion to the moral, has raised the ear, and very palpably lowered Self-Esteem and Firmness, but has nevertheless retained the forms and expression of the features with exact fidelity. Both have set "roaring war" between the mental character indicated by the brain, and the mental character indicated by the features. The one has given us a moral countenance and a low character of head; the other, a low countenance and a high character of head! And they are not student-artists, but men of great experience and high standing, who have played these "fantastic tricks." How can such aberrations from nature, reason, and good taste, be accounted for? The only theory that I can venture to offer in reply, is the following.

It is a maxim in art, "that a mere copier of nature can never produce anything great," and "that all the arts receive their perfection from an ideal beauty, superior to what is to be found in individual nature." "The whole beauty and grandeur of the art," says Sir Joshua Reynolds, "consists, in my opinion, in being able to get above all singular forms, local customs, particularities and details of every kind. All the objects which are exhibited to our view by nature, upon close examination will be found to have their blemishes and defects. The most beautiful forms have something about them like weakness, minuteness, or imperfection." The painter, therefore, who aims at the grand style, should form an "idea of the perfect state of nature," and "learn to design naturally, by *drawing* his figures unlike to any one object."

These canons of art contain truth, but they have sometimes been misapplied, and need to be received with some qualifications. Perhaps all actual human figures have their blemishes and defects, but these are accidental merely; their origins may be traced, and their causes discovered. There is a great multiplicity of parts in the human organism, and perfect beauty is evolved only when all the parts, each in its individual condition, in its individual size and form, and in its relative proportions, are perfect; and, considering that malformation

at birth, disease, occupation, climate, and other influences, may injure some parts, and leave others unscathed, it may really be rare to find the whole organism perfect in any one individual. An artist, therefore, aiming at the representation of perfect beauty, should not servilely copy any natural figure in those parts in which he perceives defects. But this does not imply that he should change what he *does not know* to be imperfect, merely to avoid copying nature too servilely; or that by his own invention he is capable of supplying more beautiful forms, or putting together more perfect combinations, than ever nature has exhibited. Sir Joshua Reynolds well expresses the qualification of the artist's privilege of changing, when he says, "His eye being enabled to distinguish the *accidental* deficiencies, excrescences, and deformities of things, *from their general figure*, he makes out an abstract idea of their forms more perfect than *any one* original;" but I humbly conceive that "the abstract idea" must comply with the conditions of nature, otherwise it will not represent nature successfully. Some of these conditions may be mentioned: In a work of art every muscle must be in the place, must wear the form, and must bear the relative proportion to the other muscles, which it does in the most perfect specimen of muscular beauty furnished by nature; and the same rule must be observed in regard to the different parts of the brain. As there is one style of muscular development suited to a Bacchus, another to a Hercules, and a third to an Apollo; so there is one form of head adapted to the bandit, another to the clown, and a third to the philosopher. Farther, in combining the elements of beauty, nature must be implicitly followed; that is to say—as an artist, who should represent Hercules with a small chest, would far exceed the limits of deviation from nature allowed to genius, and prove himself a fool; so one, who, to a form of brain as certainly expressive of low dispositions as large lungs are of strength, adds a high moral and intellectual countenance, does not improve upon nature, but merely shews that he is still unacquainted with the real import of the different cerebral configurations. In short, there is a rule for the guidance of the artist which at once is simple and admits of no exception: he must never join things which nature *never* combines—for example, a form of brain like that of William Hare (see p. 122), with a face, attitude, and development of body bespeaking noble mental qualities; and never *disjoin* things which nature, in the healthy condition, never disjoins. To be capable of observing this rule in the composition of a human figure, the artist must possess a very extensive and intimate acquaintance with the structure, functions, and

relative influence of nearly all the human organs. To knowledge of anatomy should be added an acquaintance with physiology, and with mental philosophy in its widest sense, namely, with the fundamental faculties of the mind, their organs, and their combinations; and their modes of affecting forms, attitudes, and expressions. "My notion of nature," says Sir Joshua, "comprehends not only the forms which nature produces, but also the nature and internal fabric and organization, as I may call it, of the human mind and imagination." It can be only after the form, functions, and relations of each separate element of beauty are known, that the artist can hope to *combine* them successfully; and he may rest assured, that in proportion to the diffusion of this correct and minute knowledge of mind and body among his critics (and an advancing system of education is daily increasing it), will his adherence to sound principles be appreciated, and his departures from them detected and condemned. It is clear that the able artists who changed the head and features of the model before mentioned did not proceed on true principles; for their changes differed equally from each other and from nature. If they thought that they were correcting defects, they made their corrections without knowledge of the thing they were striving to improve, and only fell into errors.

It may perhaps be objected to these views, that many great men do not bear the stamp of greatness in their persons; that St Paul describes himself as *mean* in his bodily aspect; that "Alexander is said to have been of a low stature;" and that "Agesilaus was low, lame, and of a mean appearance." The explanation of these phenomena is not difficult. *Mental* greatness depends on a certain size and form of brain: and such greatness is never disjoined in nature from that form and size. But the brain is only one portion of the human figure. If in St Paul the lungs were small, the vivacity with which his intellectual organs acted might have diminished the vigour of his digestive organs, and the sources of nutrition being thus impaired, his whole person, except his brain, might really have been weak, and in its forms displeasing. Sir Walter Scott was lame, and had by no means a noble presence; yet his brain, and his mental expression when his brain was active, bore the impress of his genius. The artist may in some instances find in nature a large and well-formed brain in combination with a defective mental character; because a brain, like a leg, may be unexceptionable in form, and be diseased in its condition; but he will *never* meet with *great power* united to *deficiency of size* in the organs on which that power depends, be it mental or muscular. I say, in the organs on which the

power depends ; for it will not screen the artist for many years longer, to take refuge in the vulgar, common-place objections, that many idiots have large heads, and many men of great talent small heads, and so forth. The point to which he must bend his attention is this: Is there any instance in which a very proud man has a *small* organ of Self-Esteem ; any in which a deep reasoner on causation has a small organ of Causality ; any in which a cold-blooded, malicious ruffian has a small organ of Destructiveness ? and so forth. If the power *never* appears strongly in the character when the organ is palpably deficient (the healthy state being always supposed), then, to be successful in forming the heads of his ideal personages, he must condescend to give them those organs, and in that degree of size, which nature constantly combines with the dispositions which he is portraying ; and it is only minute knowledge of the individual organs, or the closest observance of nature, that can enable him to make these combinations.

This leads me to observe, that there is still another department of Phrenology which it is of much importance to the artist to study ; I mean, that of the natural language, or natural expression, of the faculties.

Physiognomy is a universal and captivating study. When we see for the first time persons who interest us, we form opinions of their mental qualities from their bearing and expression of countenance, the tones of their voice, and their other external characteristics. As Nature herself prompts us to draw these conclusions, they must have a foundation in nature. But, nevertheless, no sphere of speculation is more beset with difficulties than this ; and in none are the judgments formed by different observers of the same subject, more strikingly various, or more frequently contradictory. Sound principles of reasoning are always wanting when able and instructed men differ palpably in their estimates of the qualities of the same individual ; and accordingly, before the discoveries of Dr Gall, Physiognomy rested chiefly on the instinctive sagacity of each individual mind, and was destitute of all basis in science or philosophy. The cause why it remained in this condition was the following :—Physiognomy is the study of natural mental qualities from their external signs ; but, before the discovery of the functions of the brain, and of its different parts, the qualities themselves were not scientifically ascertained, and their signs, therefore, could not be precisely read. The qualities were known to each student only in the mass, or separated into such elements as he, by his own sagacity and the speculations of other men, could arrive at. When Gall discovered that the strength of particular mental desires, emo-

tions, and intellectual powers, is in proportion, other conditions being equal, to the size of particular parts of the brain, he enabled us to unravel the aggregate of the mental qualities, and to resolve them into their elements, not by mere speculative sagacity, but by physical evidence of their differences. Physiognomists had acknowledged the connection between mental qualities and external signs ; and as soon as Gall was able to determine the *natural* predominance of a fundamental quality in a man's mind by its connection with a predominating development of a particular part of his brain, he became certain of the simple nature of the power, and was in a condition successfully to observe in what manner it expressed itself in the instinctive attitudes of the body, in the gait, in the play of the features of the face, and in the tones of the voice, of the individual. Gall recorded these observations, and drew from them conclusions concerning the laws according to which the different faculties express themselves by instinctive looks, sounds, and movements of the trunk and limbs. Then, and then only, Physiognomy assumed the rank of a branch of science ; and such is its character in Gall's work on the Functions of the Brain. Your space will not allow me to do more than state a few examples in illustration of his principles and of these remarks.

When the organ of Self-Esteem, for instance, predominates in size over all the other organs, it gives a cold, selfish, imperious air to the individual. He carries his head high ; his look is full of disdain ; and his walk and speech are solemn and pretentious. The activity of the emotion is revealed to the spectator through the medium of muscular movements and attitudes, which movements and attitudes (including the effects of the voice and eye) constitute the natural language of the sentiment. To be able to treat the expression of the feeling successfully, the artist should know accurately and precisely the laws according to which these movements take place. Again, as *every mental faculty* has its own peculiar natural language, and as, in most individuals, and on all ordinary occasions, several faculties, in nearly equal states of intensity, act together at the same moment, the attitudes, gait, countenance, and voice, will express the mental state produced by this combination ; and, of consequence, the muscular movements which give expression, will be such as are determined by the combined influence of all the moving powers. At this point the ordinary student of Physiognomy loses his way ; he finds himself in a labyrinth out of which he cannot escape ; the objects before him are too numerous, their combinations too intricate, and their movements too rapid, to enable him to

unravel and understand them. Nevertheless, it is the duty of the artist to represent these combined effects ; and Phrenology will lend him an important aid in doing so with fidelity and success.

Let us pursue the sentiment of Self-Esteem into its combinations. It is necessary, however, to premise, that when Self-Esteem appears *predominant*, every one recognises its character and presence. On account of the distinct manifestations which attend *predominance*, therefore, the natural language of *every faculty* can be best ascertained by studying it, in the first instance, in persons in whom it holds the ascendancy over all the other faculties. After we have discovered its pure and characteristic expression, we shall be in a condition to trace its influence when acting along with other faculties ; but not sooner. Suppose, then, that large Self-Esteem is combined with large Acquisitiveness, and deficient Benevolence and Cautiousness ; the influence of Acquisitiveness will modify the effects of Self-Esteem into the production of a cold, selfish, grasping, penurious, miserly disposition. Acquisitiveness communicates a peculiar set of muscular movements to the body and face ; and, when the two faculties act habitually together, the attitude, gestures, look, and voice, will express the attitudes of Self-Esteem, modified by and combined with those of this propensity. Again, large Self-Esteem may be combined with powerful Veneration, Conscientiousness, Benevolence, and Intellect, and it will be modified in its direction by all of these. It will then become an element communicating noble independence—self-reliance in the pursuit of truth, justice, religion, and humanity. It will impart dignity to the expression of the countenance, and grace to the attitudes and movements of the limbs. To be able to represent faithfully the results of these combinations, how advantageous must it be to be capable of resolving them into their elements ! And this is what Gall has assisted the student to accomplish.

Your limits do not permit me to enter into the details of the laws according to which each cerebral organ, when predominantly active, affects the voluntary muscles, so as to express itself in peculiar attitudes, looks, and gestures ; nor is it necessary that I should do so. These are ably expounded by Dr Gall, in his work on the Functions of the Brain, and also by Dr Spurzheim, in his publications on Phrenology. I beg leave, however, to remark, that the student who takes up these works, and merely reads the pages, and conceives that he should thereby instantly become an adept in this branch of the science, will be disappointed. The doctrine of expression occupies one of the highest and most recondite departments of

Phrenology ; and to master it, the student must be *practically* acquainted with the elementary portions. He must have studied nature under the lights afforded by this science, carefully and long, before he can succeed in appreciating the laws of expression ; but after he has done so, he will find the attainment reward him for the application.

Before leaving this subject, however, a question of some importance solicits our attention. Sir Joshua Reynolds has observed, that "it may be thought, at the first view, that even this form (*i. e.* faultless form), however perfectly represented, is to be valued and take its rank only for the sake of a still higher object, that of conveying sentiment and character, as they are exhibited by attitude and expression of the passions. But we are sure, from experience, that the beauty of form alone, without the assistance of any other quality, makes of itself a great work, and justly claims our esteem and admiration. As a proof of the high value we set on the mere excellence of form, we may produce the greatest part of the works of Michael Angelo, both in painting and sculpture, as well as most of the antique statues, which are justly esteemed in a very high degree, though no very marked or striking character or expression of any kind is represented. But, as a stronger instance that this excellence alone inspires sentiment, what artist ever looked at the Torso, without feeling a warmth of enthusiasm, as from the highest efforts of poetry ? From whence does this proceed ? What is there in this fragment that produces this effect, but the perfection of this science of abstract form ?"

There is truth in these remarks ; but the explanation of the relative merits of form and expression deserves consideration. Nature has given us an organ of Form, to take cognizance of forms ; an organ of Size, to take cognizance of magnitudes and proportions ; and an organ of Order, to take cognizance of arrangement. Each of these is gratified when its objects are presented to it in their most perfect state. Added to these is Ideality, which confers an *emotion* of delight on the contemplation of the beauty perceived by these intellectual powers. An Etruscan vase of exquisite form and proportions addresses itself *directly* to these faculties. The more perfect its forms and proportions are, the more completely is it adapted to their constitution, and the more pure and perfect is the delight in surveying it. I have just returned from gazing on a single Corinthian column, taken from the ancient Temple of Peace, and now erected on a pedestal near the Church of Santa Maria Maggiore in Rome, where it exhibits its entire outline against the sky. Nothing can be more cap-

tivating as an object of mere form and proportion. Words can neither define nor express the precise lines and dimensions which communicate this pure and vivid pleasure; but the faculties above named *can feel the effect* and perceive the existence of the cause. Sir Joshua Reynolds is quite correct, therefore, in describing pure form as a source of pleasure; but the pleasure may be called elementary, and it will be felt most strongly by those individuals in whom the organs before named are most largely developed and most highly cultivated. Artists belong to this class; and they, for the most part, ascribe more importance to the beauty of mere form and proportion in works into which *expression* also should enter, than the cultivated public generally do. In the vase and column, forms and proportions evolving beauty are the alpha and omega of the composition. If they are present, and the beauty is felt, the mind desires no more. But the case is different in a statue. Forms and proportions are here subordinate to expression. They are to the statue what single words are to a poem—the mere elements, by the combination of which mind may express its grandest conceptions of *mind* as well as of matter.

I shall revert to this subject in my next communication; but in the mean time beg leave to mention that I have enjoyed the pleasure and advantage of a free interchange of ideas on the views presented in this letter with Mr Lawrence Macdonald, one of the eminent British sculptors settled in this city; and have profited largely by his criticisms, which are founded on an extensive knowledge of Phrenology, Painting, and Sculpture. In stating that several of the *principles* on which I proceed have been long recognised by him as sound, and have been practically applied in his own compositions, I do not desire to render him in any degree responsible for what I have written, or even to support my propositions by the strength of his authority; but wish simply to acknowledge the obligations under which I lie to his judgment and genius in prosecuting my own studies and researches in this interesting field of inquiry.—I am, &c.

GEO. COMBE.

II. *Early Shop-Shutting.—Address to the Merchants and Shopkeepers of Edinburgh.*

GENTLEMEN,—While a great movement has been made in London, Liverpool, Manchester, Newcastle, and other large towns in England, which is successfully bringing about an

abridgment of the hours of business, it has been the subject of general surprise that more has not been done to attain that object in Edinburgh, where nine-tenths of the business is transacted in about *six hours* per day (between ten and four), while the average time of keeping the shops open is at least *thirteen hours* (from eight in the morning till nine in the evening). And it is for the purpose of calling your attention to the subject, and the advantages that would arise to yourselves, your families, and your assistants, by having *one uniform hour of opening and closing your shops throughout the whole year*, and SHORTENING THE PRESENT HOURS OF BUSINESS, without any injury to the interests of the community, that I now take the liberty of addressing you.

I am confident few among us would assert that they would lose anything by adhering to such an arrangement, and fewer still that less bread or beef would be eaten, less tea drunk, or fewer clothes worn, in consequence of the bakers, the butchers, the grocers, or the drapers shutting their shops at seven; while the benefit that would arise to all concerned would be very great, were the time *thus gained* properly spent. And I may say, in passing, that in all cases where the assistants *have* got an additional hour or two per day, it is now known that they have *improved*—not abused it, as has been gratuitously assumed, and have shewn themselves abundantly deserving of such a privilege; and I see no reason to doubt that, if the assistants and apprentices in our city had the opportunity, we should soon see them set about extending their knowledge, by establishing lectures, attending classes, and otherwise fitting themselves for the higher duties of life.

The attempt that was made last winter by one of the Trades to shut at seven was defeated; 1st, for want of a proper plan having been organized for carrying it into effect; and, 2^d, the hour of seven was not found to be over convenient for some of those who live at a distance from their shops, and those who could not get away to dinner till near five o'clock, and disliked being hurried back from their comfortable firesides to wind up the affairs of the day and shut at seven,—forgetting all the while, however, that their assistants were remaining in comparative idleness in the shop, and not doing so much business as to pay for the gas that was consuming; and, 3^d, by the selfishness of a few, in keeping open their shops beyond the hour agreed upon. In some of the towns above named, this *third* cause has been completely *cured*, by the “inhabitants withdrawing their support from selfish dealers, whose bad taste and avarice set public opinion and the general wish of their fellow-tradesmen at defiance, by keeping open beyond the

concerted hour ;' and I have no doubt that, should a fair arrangement be come to in Edinburgh, the public will also *mark* any who, from sordid motives, refuse to add to the comfort and improvement of so large a portion of the community as assistant shopkeepers compose, by falling in with the wishes of their brethren.

The *cure* of the *first* and *second* causes of failure is in our own hands, and I hope all the leading, influential, and public-spirited men among us will soon take up the matter, and improve upon past experience. Let a general meeting of shopkeepers be called, and arrangements entered into for carrying out the proposal of *opening and closing all shops at one uniform and exact hour throughout the year*, or whatever resolutions the general voice of the meeting may agree upon (though the above appears to be the most approved plan in the towns referred to, and *will* ultimately work best). Let the town be divided into districts, in each of which two or three influential, but working, men should be appointed to form a *Standing Committee* to carry out the resolutions of the meeting, to wait upon all shopkeepers in their respective districts, and endeavour to obtain their consent to the proposed plan ; and were additional Committees of two or three from every interested trade formed to act with them as auxiliaries, they might be very useful in managing any peculiarities or difficulties about their respective trades which stood in the way of shortening their hours. For instance, were it found quite impracticable for grocers to shut at seven, their Committee, by calling a meeting, or taking the general voice of that Trade, might manage to get them to shut at eight or nine, instead of ten, eleven, and twelve, as at present : and were these Committees to meet at a convenient hour in the evening once or twice a-week, and *fully arrange the whole matter*, I have little doubt that a satisfactory agreement would speedily and effectually be arrived at by a great proportion of the Trades in this city, to shut at latest by seven o'clock all the year round.

The shopkeepers in the business towns of the South are carrying this into effect, and I would rejoice to see the same abridgment of labour and consequent privileges introduced here ; but the internal arrangements in England, where all the assistants are boarded and live with their masters in their places of business, are so different from ours in Scotland,—where both master and assistants live generally at considerable distances from their places of business, and all separately,—as to render it desirable that, should any change be attempted, the peculiarities of our circumstances should be taken into account, and such alterations made as would be most convenient, and

suited to those particular circumstances in which we are placed, and, at the same time, characterized by *permanency* ; for I doubt it will never be found to work so well, shutting some months in the year at one hour, and some months at another, as having *one fixed hour* throughout,—since it cannot be expected that the public will keep these changes in mind, and consequently irregularities and disappointments will follow.

I have thought over a plan which I am sure would suit a great majority of the trades in Edinburgh ; and however absurd the suggestion may be thought at first sight, I shall submit it to your consideration, and explain, as shortly as possible, my proposals for carrying it out, and leave it for discussion, should any meeting be held. It is simply TO OPEN OUR SHOPS AT NINE, AND CLOSE THEM AT SIX DAILY ; and I am confident, from inquiries I have made, that ample time would be found between these hours to transact more business than most of us are at present doing, and altogether answer our other arrangements in Scotland, better than shutting at seven.

Were both masters and assistants breakfasting before their shops opened at nine, and taking a cold substantial lunch in the shops at mid-day, the business would proceed smoothly and *unbroken* ; and by closing the doors *as the clock struck six*, all could leave instantly for dinner, and not be required to return. The assistants and apprentices could reach the lecture or class rooms by half-past seven, where they might spend two hours to much advantage. The additional hour gained in the morning would allow healthful out-door exercise, bathing, or time to prepare their studies.

If this arrangement were tried, ALL MEAL HOURS WOULD BE ABOLISHED : and who have not felt the endless annoyances arising from themselves and assistants going home to meals ? In most shops, breakfast hours commence at eight, and continue till about eleven ; dinner hours about one, and seldom terminate till six. In fact, in shops where there are half a dozen or more assistants, you can scarcely ever calculate on having them all at their posts at once. In England, even where there are fifty hands in a house, dinner occupies only one hour for the whole ; while in shops here, where there is seldom above a tenth part of that number, five or six hours are occupied, or, at all events, completely broken, by the present system of dining, and those hours, too, generally the very busiest part of the day. Each gets away at least two hours for breakfast and dinner ; and it would come quite to the same thing *as to time*, were they getting those two hours after six, instead of during the busy time of the day, when they are chiefly required to be at the receipt of custom ;—nay, I believe the assistants would posi-

tively prefer it. There would thus be only one uninterrupted spell at business daily; and the assistants would gain *three* hours, while only *one* would be given by the masters, supposing those who now open at eight and shut at eight, were to open at nine and shut at six.

Were this carried out, ALL HANDS WOULD BE AT THEIR POST DURING THE WHOLE NINE PROPOSED BUSINESS HOURS, and would undoubtedly do more efficient work than by the present going-out-and-in, broken-time system; while our business habits would be improved in activity, by condensing the work of the day into nine *regular* hours; for I am by no means advocating the abridgment of our hours in Edinburgh on account of any hard work:—quite the reverse: it is from the irksomeness of waiting at our shops *so long*, when *so much shorter* time would not only answer the same end, but give us all several additional hours daily, to cultivate and improve the faculties which our Creator has given us.

It cannot be wondered at, “that there is no class of society equal in status with us, who, as a body, are so unacquainted with science and general literature,—no class less familiar with the data and principles, whether of sound political, economical, or ethical opinions;” when it is considered that we are generally apprenticed at twelve or fourteen years of age, and are occupied at business, on an average, twelve to fourteen hours a-day, which, as we advance in the world, is often increased by our anxious after-hours reflections how we may most profitably increase our business, and arrange our future plans. There is no obstacle more likely to impede the proposed change, or argument more likely to be advanced in favour of the present late hours of business, than “old custom,” and the difficulties of getting out of our acquired habits. “But this monster evil is of *modern* growth. The old citizen was accustomed at four o’clock to quit his shop, which was left in charge of a mere lad till five o’clock, and then closed for the night. Fortunes were made, nevertheless, and the public convenience as well provided for as now;” and it is only about a quarter of a century since an English philosopher exclaimed, when he no doubt saw this evil increasing, that “THE MAN WHO SUBJECTS ME TO TWELVE HOURS’ TOIL IN THE DAY, MAKES MY SOUL A SLAVE, AND CONDEMNS ME TO PERPETUAL IGNORANCE;”—an awful truth, which “old custom” may never have called us to reflect upon, but which, nevertheless, deserves our most serious consideration.

It is now nine centuries since that great economizer of time, King Alfred of England, divided the day into three equal parts of eight hours each, viz. “eight hours each day he gave to sleep, diet, and exercise; eight to the affairs of government;”

and eight to study and devotion." A more wise division of the twenty-four hours is not to be found; and it would be well for this country were the labours of all confined to eight hours a-day, and sufficient opportunities provided, during the time thus saved, for educating the masses, who are now growing up in ignorance. But our object in the meantime should be "to compress the labours of the day into so many *consecutive* hours as shall suffice for their due performance,—to redeem the extra time, which is absolutely wasted in unemployed attendance at the counter,—and to devote that time to the bodily and spiritual health of man, without trenching upon the duties, and obligations, and reasonable requirements of the shop;" and it is hoped that a general meeting will soon be called, to take the subject into consideration. I am, Gentlemen, yours devotedly,

A SHOPKEEPER.

EDINBURGH, Jan. 1844.

III. *Contributions towards a more exact and positive knowledge of the Organ named Language, and its Function.* By Mr RICHARD CULL.

The knowledge we possess of the organ named Language, and its function, is so vague and imperfect, that, in Dr Gall's own words, we may continue to anticipate a reader's surprise at its defective condition:—"L'on trouvera fort singulier sans doute, que ce soit précisément au sujet de cette faculté et de son organe que mes travaux laissent le plus à désirer." Gall foresaw that his views would be modified by the application of a more accurate and a more extended knowledge, than he possessed, of the objects which are in relation to the organ; but he claims the unalterable truth of his own facts, adding, "Je m'en tiendrai uniquement aux faits. Les faits resteront immuable, dans le cas même où ma manière de les envisager subirait encore des modifications."*

The two propositions, 1. That the manifestation of verbal language depends on a cerebral organ; and, 2. That the cerebral organ lies on the posterior part of the super-orbital plate, are firmly established by Gall's observations.

The organ, however, is stated by Dr Gall to consist of two organs, the one situated behind the other, and both lying on the posterior part of the super-orbital plate. He describes the

* Gall sur les Fonctions du Cerveau, ed. 1825, T. v. p. 13.

function of the posterior organ as the Memory of Words,* of Names† (the names only of Persons and Things, corresponding to the Proper and Common names of grammar, appear to be here intended‡), and of Phrases.§ And he designates the organ by the terms “Sens des mots, sens des noms, mémoire des mots, mémoire verbale;” and adds the German term “Wort-Gedächtniss,” which is verbal memory.|| He describes the function of the anterior organ as the Memory of Words, the desire to study languages, the disposition for Criticism (meaning lingual criticism), and, in general, for all that relates to literature.¶ And he designates the organ by the terms “Sens du langage de parole, talent de la philologie, etc.,” and adds the German term “Sprach Forschungs-sinn,” which is philology.**

Although Gall describes these as distinct organs, and treats of their functions under separate heads, yet he considers the Sense of Words but as a part of the Sense of Speech; and thus, by implication, he deems both the organs to be necessary for spoken language. His words are, “Nous n'avons pas donné dans les gravures de chiffres particuliers à la partie dont il est ici question (l'organe de la mémoire des mots), parce que nous avions considéré le sens des mots comme n'étant qu'un fragment du sens de langage de parole.”††

Dr Spurzheim admits only one organ of Language, which “makes us acquainted with arbitrary signs, remembers them, judges of their relations, and gives a disposition to indulge in all exercises connected with words.”‡‡ He compares the function of the organ of Language in relation to language, to the other intellectual faculties in relation to their objects. “It seems to me that the organ of words must have its laws as well as those of Colour, of Melody, or any other faculty; now the law of words constitutes the spirit of language. I am satisfied that this opinion is correct, because the spirit of every language is the same, just as the essence of all kinds of music is alike; that is, the laws or principles of music, and of language, rule universally, and are constant; they are only modified in different nations by modifications in their organs, and dissimilar combinations of these in each.”§§

Mr Combe is “disposed to coincide with Dr Spurzheim in this view; and perhaps by analyzing the source whence the structure of language proceeds, we may obtain some light on

* Gall sur les Fonctions du Cerveau, ed. 1825, T. v. p. 12.

† Ibid. p. 25.

‡ Ibid. p. 24, et 28.

§ Ibid. p. 75.

|| Ibid. p. 12.

¶ Ibid. p. 30, et 31.

** Ibid. p. 30.

†† Ibid. p. 18.

‡‡ Spurzheim's Phrenology, 4th ed., p. 294.

§§ Ibid. p. 287.

the origin of a taste for the spirit of languages, as distinguished from the power of learning and recollecting words.”*

Mr Combe then examines a supposed language, which is produced by an imagined national development, for the purpose of stating an hypothesis of the seat of the philological talent, in order to direct the observations of other inquirers on this highly interesting subject. Mr Combe’s hypothesis is, that the talent for acquiring languages depends, *1st*, On the organ of words; and, *2d*, On the capacity to enter into the mental states of other nations; which “power is conferred chiefly by Secretiveness, Imitation, Individuality, and Eventuality, aided, of course, by the other primitive faculties.”†

In the treatise on Phrenology in Chambers’s Information for the People, Mr Simpson says, “The prevailing opinion is, that the faculty of Language has less to do with this power (acquiring languages) than Individuality, Imitation, and some other faculties.”

It appears to me, that, with the exception of a few who have adopted Gall’s views, the bulk of British phrenologists have received those of Spurzheim on the organ of Language.

Dr Broussais adopted Spurzheim’s; and it appears from the subjoined quotation, that the French phrenologists in general have likewise done so:—“Gall admit d’abord deux organes, un pour la facilité et le goût d’apprendre des langues, la philologie, et l’autre pour retenir les mots; cette division n’a pas été acceptée.”‡

“Dr Vimont draws the following conclusions from the facts which he mentions:—

“*1st*, That in man and animals a faculty exists, the function of which is to recall sounds, whether articulated or not articulated.

“*2dly*, That the talent called ‘sens des langues, talent du philologie,’ is not the result of a special faculty, as Gall pretends, nor a mode of judgment of the faculty of verbal memory, as Spurzheim announces, but arises from the higher intellectual faculties, which the faculty of verbal memory may powerfully aid.

“*3dly*, That projecting eyes, or eyes having a pouch under the lower eyelid, described as the characteristic of the organ of verbal memory, or philology, large, are not the constant signs of a considerable development of these two faculties, although they accompany them so often as to merit the attention of phrenologists.”§

* Combe’s System of Phrenology, 5th ed., vol. ii. p. 133.

† Ibid. p. 134.

‡ Broussais, Cours de Phrénologie, p. 604.

§ Vimont’s Traité de Phrén., tome ii. sec. ix., quoted by Mr Combe in the System of Phren., 5th ed., vol. ii. p. 136.

It is familiarly known that Dr Gall had but an indifferent verbal memory; and his eye indicated only a moderate size of the organ of Language. Dr Spurzheim had an excellent verbal memory, and his eye indicated a full-sized organ. The following statement of Mr Combe's is highly interesting:—"I have seen the skull of Dr Spurzheim, in the possession of the Phrenological Society at Boston, U. S. There is in it a large transverse depression in the posterior portion of each super-orbital plate, indicating a large organ of Language. He spoke and wrote several languages successfully."* Dr Broussais had an excellent verbal memory, and his eye indicated a full-sized organ of Language. Of Dr Vimont's memory and organ I can obtain no satisfactory information.

In order to arrive at more exact and positive knowledge of the organ or organs which manifest verbal language, a series of accurate and extensive observations are necessary, 1st, On the sphere of action of the mental faculty named Language, and, 2d, On the objects in external nature which are in relation to the faculty of Language. These objects are words. The philosophy of words has been only partially applied to illustrate and determine the special function of the organ named Language. Indeed, phrenologists, and those read in phrenological literature, like the bulk of the scientific public, not only take little or no interest in the philosophy of verbal language, but too commonly treat both the subject and its students with contempt. The motto which Sir George Mackenzie presented to Dr Spurzheim—*Res non verba quæso*—is not unfrequently quoted to condemn the study of words. And that opinion of Locke's, which phrenologists have so generally adopted, on the subject of teaching boys the Latin and Greek languages, is often quoted, with its superadded phrenological authority, to deprecate philological studies. It may be remarked, that, for such applications, neither Locke nor Phrenology is responsible. The importance of an accurate knowledge of the several objects which are in relation to the several cerebral organs, in obtaining exact knowledge of function, was fully known to Gall. He knew that what he wrote of colours, in relation to the organ of Colour, is applicable, *mutatis mutandis*, to the science of verbal language in relation to the organ of Language:—"J'avoue que pour parler pertinemment de tous les objets qui rentrent dans la domaine de la physiologie du cerveau, il me faudrait faire des traités beaucoup plus complets que mon ouvrage ne le comporte; il faudrait des connaissances presque universelles—chose impossible, mais qui doit engager un jour les connoisseurs à faire l'application de l'organologie à chaque partie en

* Combe's System of Phrenology, 5th ed., vol. ii. p. 132, foot-note.

particulier.”* The present is an attempt to apply the philosophy of verbal language towards the elucidation of the special function of the organ of Language.

It appears, from the ordinary grammatical classification of words, that nouns-substantive alone are considered to be names. Dr Gall seems to have adopted that opinion.† But all words are names :‡ they are names of Things, their qualities, conditions, and relations ; of Events, their conditions and relations ; of Time, of Space, and of Number. A proper use of verbal language consists in the right application of words, as the names of things, their qualities, conditions, and relations, &c. to designate those things, qualities, conditions, relations, &c. as occasion demands. The right application of words constitutes Precision of language, which is the corner-stone of oratory, and, indeed, of all other speech. Precision of language in discourse depends on three distinct circumstances, viz. one of thought, and two of words. 1. The thought must be clear ; for want of clearness in the thought necessarily produces obscurity in the language. 2. The knowledge of the words must be accurate ; for, through ignorance of the signification of words, an improper word may be chosen to designate the thing, quality, or condition which is intended. And, 3. The memory, which is amply stored with words of known power, must be ever ready with the appropriate word at the precise moment it is wanted ; for the non-readiness of the memory may occasion an improper word, although of kindred signification, to be adopted, simply because it occurs to the mind in the absence of the right one.

Most languages contain some duplicate words which are called Synonyms, and which are commonly supposed to be more numerous than they are ; for, on investigation, many reputed synonyms are discovered to be words only of a kindred signification, which, besides expressing the same radical idea, express also some adjunct. Thus, of the words *Orator*, *Declaimer*, *Haranguer*, and *Holder-forth*, each signifies a public speaker, and so far they are synonyms ; but each word expresses something in addition to what is conveyed by the passionless term

* Gall sur les Fonctions du Cerveau, T. v. p. 88.

* Ibid. p. 24, et 25.

† “ I maintain,” says Horne Tooke, using the word *thing* in an extended signification, “ that the *adjective* is *equally and altogether as much the name of a thing as the noun-substantive*. And so say I of ALL words whatever. For that is not a *word* which is not the *name* of a thing. Every word, being a sound significant, must be a *sign* ; and if a *sign*, the *name* of a *thing*. But a noun-substantive is the name of a thing, and *nothing more*. And, indeed, so says Vossius : ‘ Nec rectius substantivum definitur, Quod aliquid per se significat. Nam omnis vox ex instituto significans, aliquid significat per se.’—De Analog., lib. i. cap. 6.” Horne Tooke’s Diversions of Purley, part. ii. chap. vi. Of Adjectives. The italics in the quotation are Tooke’s.

Public Speaker ; hence they are not synonyms, but are words of a kindred signification. It may be remarked that the term Orator signifies one whose speaking is of so high a character as to obtain admiration and respect ; Declaimer, one whose speaking is less marked by logical conclusiveness than by metretic ornament ; Haranguer, one whose speaking commands no respect ; and Holder-forth, one whose speaking is contemptible. Examples of other kindred nouns will occur to the reader. Many verbs, too, of kindred signification are sometimes mistaken for synonyms. And the same is true of some of the particles of kindred signification. Wishing to avoid unnecessary extension of this paper, I forbear giving examples of mistaken synonyms of verbs, and of particles ; the foregoing illustration of the nouns is perhaps sufficient to exhibit the province of the intellect in apprehension, and of the faculty of Language in verbal expression, in discourse.

There are certain deviations from the adoption of the appropriate word, which do not injure the precision of language, while they confer additional power and elegance on the discourse ; such are Epithets instead of adjectives, which are frequently adopted, especially by orators and poets. Thus, in order to express the idea a *brave man*, instead of the adjective *brave*, an orator might adopt the epithet *lion-hearted*. In this, and other examples of well-chosen epithets, the intended quality is brought before the mind with more life and power, than when the appropriate adjective, which is the passionless name of the quality, is adopted. The epithet *lion-hearted* conveys much more to the mind than the adjective *brave* ; for it expresses not mere braveness but lion-braveness : the lion being esteemed the bravest animal, the superlative degree of braveness is signified ; and not only this, but a noble braveness, for nobleness is a quality attached to the braveness of the king of beasts. Now, to apprehend all this, which the epithet *lion-hearted* flashes on the mind, the faculty of Comparison is brought into play, which it is not for the apprehension of the adjective *brave* ; and this circumstance, without calculating the number of other faculties which come into action along with Comparison, is sufficient to indicate the source of the greater power of the epithet. It is true that the epithet expresses a high degree of braveness, and even surpasses what is expressed by the adverb *very* in the phrase, “ a very brave man ; ” but the main source of the epithet’s energy is in its power to awaken, and bring into combined action, a greater number of the mental faculties, in order to grasp the signification. Thus the epithet not only takes a deeper but a broader hold of the mind than the adjective.

There are Metaphors* and other verbal figures of speech, which some persons have supposed were invented by the orators and rhetoricians of antiquity, for the unworthy purpose of deception ; but which, in fact, were the necessary result of the gradual extension of language to meet the demands for expressing an ever-increasing knowledge. The proximate and remote significations of words contained in lexicons, are records of extended and varied significations, which have been added to the primitive sense of the words. This may be illustrated by examining the applications of the English word *rising*. This word is the name of an action, by which an object is moved from a lower to a higher place. The addition of particles will express *rising from*, or *towards*, any given object ; the additional notions also of *speed*, *delay*, *acceleration*, *resistance*, *non-resistance*, *alone*, *with company*, are expressed by various other adjuncts. When an object is rising, as a ball thrown up by the hand, there is a continual increase of distance between it and the hand ; which is so obvious a circumstance of the action, as to occasion the adoption of the word *rising* to name several other actions in which an increase of distance is observed, and to name even actions and conditions, in which that circumstance is conceived to be observable : the sun is *rising* ; a horse is *rising* four years' old ; prices are *rising*. The action may be applied to the mind, as indeed it is, by the adoption of the word *rising* to denote its progress and improvement in *knowledge*, or *influence*, *rank*, and *wealth*. Again, with certain adjuncts, it may signify, *to become superior to*, *to excel*, *to conquer*, *to humble* another. All these, and several other significations, are given by extending the primitive one to denote actions and conditions, which are more or less similar to the original act.

The department of the science of language, which considers the laws of these variations in the application of words, is named Tropology.† Tropes are classified, in accordance with their peculiarities ; as Metaphor, Metonymy, Synecdoche, &c.

There are other rhetorical figures, such as Prosopopœia, Erotesis, Paralepsis, and the like, which do not spring solely from the language, which are not verbal figures, but are modes of thought and feeling, as well as of expression. An analysis of these figures, in relation to the development of the cerebral organs, and a phrenological distribution of them in accordance with their sources, is yet a desideratum in the philosophy of the human mind. The consideration of these figures, being unnecessary to the subject of this paper, will not now be taken up.

* *ἔγω* I carry, and *μετα* beyond.

† *τρίστει* I turn, and *λογος* a discourse.

A speaker, whether in oratory or conversation, apart from gesture, action, and facial expression, is not dependent on mere verbal language to convey his notions. It will be observed, that his verbal language is accompanied with the expressive powers of his tones of voice. These tones consist of something more than that stress which is laid on the appropriate syllables of words, and by the situation of which alone, many verbs are distinguished from substantives. The tones of voice enforce, animate, and economise verbal language; they exhibit connection and disconnection of thought; they mark certainty and uncertainty of knowledge; they express each emotion with every degree of intensity which is felt by man. They constitute a language, which may appropriately be named a tone-language. This tone-language is adopted to supplement verbal language; and we all feel its powerful influence in conversation, in oratory, in the strife of debate, and in the drama.

Tone-language is a part of music. It was probably the origin of all music. It must be studied as music; and it can be successfully studied only by those having a musical ear. These vocal tones have distinctions under the general terms Pitch, Loudness, Quality, and Duration;* and they can be written on the musical staff with as much precision as ordinary music itself. This tone-language is perceived by the same faculties which perceive music. It is the melody of speech; the term Melody being adopted in the same restricted sense, as when applied to song, in the term Melody of Song, where it designates the path of the voice in singing (irrespective of articulation) through the degrees of pitch of the musical scale. The term Melody of Speech, then, designates the path of the voice in speaking (irrespective of articulation) through the degrees of pitch of the musical scale.

This tone-language is the natural voice of the emotions; it is instinctive, and naturally significant. Observation shews, that in conversation we spontaneously adjust the tone-language to appropriately enforce, animate, and supplement our verbal language; few persons, however, so well adjust them in public speaking, and still fewer in public reading.

Some remarks on the tone-language of man and other animals, as a natural means of communication, will be offered in a separate paper on the general subject of expression. In this paper, I have endeavoured to state the several opinions which are entertained on the function of the organ named Language; I have drawn attention to the fact that all words are names;

* These distinctions are described in my papers on the musical faculties, *Phren. Jour.*, vol. xii., p. 249.

have stated and illustrated the origin of verbal figures of speech ; and, finally, have noticed the tone-language which supplements our verbal language, and which, united with it, constitutes Human Speech.

IV. *Reliques and Anecdotes of Dr Gall.* Communicated by
R. R. NOEL, Esq.

TO THE EDITOR OF THE PHRENOLOGICAL JOURNAL.

ROSAWITZ, NEAR BODENBACH, BOHEMIA,
24th November 1843.

DEAR SIR,—I forward you translations of extracts from two letters written by Dr Gall. These extracts are in a book, now in my possession, which formerly belonged to the late celebrated archæologist Dr Böttiger. It consists of the pamphlet by Von Selpert, “Gall’s Lectures on the Functions of the Brain,” &c., Berlin, 1805, bound up with writing paper between each leaf, on which Böttiger, who was well acquainted with Gall, and had attended a course of his lectures, has made numerous notes and remarks, many of them of much interest. Having mentioned these extracts from Gall’s letters to Mr Combe, during the visit which I had the pleasure of receiving from him last August, I was asked by him to translate and send them to you for publication. The translation is as literal as possible, perhaps too much so to read well in English.

I. Extract of a letter from Gall to the Oberhofprediger (the head court preacher) Reinhard ; June 1st, 1805.—“At the Court of Vienna the suspicion of materialism has long been given up. All the publications on my science (Lehre) are allowed, if the authors abstain from all offensive insinuations against the court itself or the government. The only reason why public lectures are not allowed in Vienna, is because the Emperor has been made to look with suspicion on every public discussion of scientific subjects. It is on this account that extraordinary (extra) lectures, even within the walls of the University, are extremely circumscribed, whilst they are forbidden altogether in private houses, as are likewise private theatricals. However, I know for certain, that the Emperor wishes he had not given out the celebrated “Hand-Billet.” I have nevertheless remained faithful to my investigations, and hope that you too will approve of my steadfastness. My course of lectures consists of 8 to 10 ; but each of two hours’ duration, since it is not good to break off the connection. It will cause much pleasure to admit free all whose means are limited, young medical men, students, preachers, school-masters, &c. Nothing whatever takes place that can shock, in the least, the feelings of the female sex. I beg them only, in general, to slip away a quarter of an hour before the termination of my lectures. In fact, I wish everywhere to have many mothers amongst my auditors, since these have the most important influence on education in the earliest

years, and my doctrines throw much light on this subject. However, I willingly accommodate myself to circumstances."

II. Extract of a letter from Gall to Geheim-Rath Loder; June 1st, 1805.—"It is of the highest importance to me to be able to enjoy the society of a man of your reputation, and, what is still more, of your noble character, to my heart's content, and as leisure will allow. Whatever I know more than you do, I will instruct you in. But how much will you not have to teach me? We will love one another, and be sincere in our devotion to science. If I can rejoice in your instruction and approbation, I shall in every case participate in your merits. What I particularly wish to learn and to see with you, is the spinal-marrow with all the nerves, which latter, however, must not be cut off too short. That which I imagined must be the case, according to the laws which I have pointed out in the structure of the brain, I have already found to be confirmed. We are now working at the spinal-marrow of several cats and dogs. These investigations are to give a clear view of the whole nerves (nervenlehre). In Halle I intend to act as I have done elsewhere; to admit poor students, young medical men, preachers, schoolmasters, &c., free of expense. At present the propagation of my science (Lehre) is my first object; but whenever I go into a foreign land, I shall endeavour to combine with it another. * * * The 'pauper' Aristotle can have no attractions for a man who finds so little indemnification in so-styled Philosophy."

The following remarks and anecdotes, by Dr Böttiger, are taken from the same book:—

"Gall derives the greatest enjoyment from imparting his knowledge to others. He compares himself, when lecturing, to a girl who delights in singing or dancing. When a boy, he wished to become a clergyman, owing to the pleasure which it gave him to discourse before others."

"Gall dreams incessantly and agreeably, and if he were to die to-day (he is 41 years of age) he might be said to have lived 80 years; for he never sleeps without dreaming. Disagreeable dreams he is able to banish; his plan is to think disagreeable subjects well over before going to sleep. This satisfies the mind."

"Upon the burning down of the building appointed for the combat of wild animals, &c., in Vienna (der Hetzhof), the only animals which escaped were the bison, which ran into a butcher's yard, and a fox, which in all haste burrowed into the earth, and was dug out alive after the expiration of eight days. All the lions, bears, hyænas, &c., were burnt to death and cast into a deep pit, into which all the dead horses and dogs, and even many of the latter alive, which had been given to a veterinary surgeon to cure, were likewise thrown. Gall procured a ladder and descended into this pit, wandering about amidst the foul carrion, stirring up the bodies with a proper instrument, and cutting off the heads of the lions, bears, hyænas, &c., which he carried away."

"Count Saurau enabled Gall to procure the head of Frère David.* Gall descended the vault in which the corpse had been lying eight days. With the aid of his assistants, he moved the coffin into a draught of air, and, half averting his face, he himself cut off the head from David's putrid body. Gall has never stolen a single head or skull."

"Gall is of opinion, that in perfect dreamless sleep all is suspended, and that the thinking (power) in us ceases. This alone proves his mate-

* See Phren. Journal, vol. vi. p. 480.

rialism.* He, therefore, considers the whole of what is taught about indistinct conceptions, whereby there is no 'apperception,' pure nonsense. Nevertheless, he cannot deny the free will with which I change one conception for another—one impression on my senses for another. This is the *ἡγεμονία* of the ancient philosophers."

"All popular orators, &c., speak in fables, parables, proverbs; and Gall himself, whose lectures are a pattern of a true popular style, immediately has recourse to examples, comparisons, &c. It is a good remark, why comparisons and proverbs are so generally liked: owing to their absence of precision, each person interprets them in a manner directly flattering to his own understanding."

I have particular pleasure in communicating this last memorandum of Böttiger's, as it may assist in removing an erroneous impression of Gall's powers as a teacher, which seems to have been formed by certain persons in England; for one instance, see *Phrenological Journal*, July 1842, vol. xv. p. 287. Since I have resided in Germany, I have had opportunities of conversing with many persons who were acquainted with Gall, and had attended his lectures in Vienna or Paris. I will only enumerate Princes Metternich and Dietrichstein, Professors or Drs Froriep, Böttiger, Hammer, Seiler, Weigel, Herr Niklas, &c. From these persons I have never received but one, the most favourable, opinion of Gall's powers, both as regards his indefatigable search for facts, and his capacity to digest and arrange the knowledge which he acquired. Prince Metternich, in one of the numerous conversations I had with him in the winter 1834-5, on Gall and his doctrines, made the following remarks, which I noted at the time:—"Gall," he said, "was the greatest observer and thinker he had ever known, a most indefatigable investigator, and true philosophic mind." On another occasion, he styled him "a man of facts, and a lover of truth—a hater of all theories." "He (Gall) would never dispute with ideologians" (disciples of the transcendental schools). "His views were always to the purpose, but his manner of expressing them not always good. He was deficient in *tact*," and was often "warned by the Prince to be more prudent in this respect." The latter said it was Gall's want of tact (query, uncompromising love of truth?) which had drawn upon him the enmity of the priests in Vienna.

The following is one of the anecdotes which the Prince related to me, as shewing Gall's deficiency in tact:—The Prince was present one day in Gall's house at Paris, when he had collected a large party of savans to witness the dissection of the brain of a girl just executed. Gall continued a long time regarding the head on the table before him, and calling the

* We do not think that Böttiger's inference here is warranted by the premises. Gall, who in his works strongly disclaims materialism, must have meant simply that in perfect sleep the *action* of the mind is suspended.—EDITOR.

attention of the company to the striking resemblance which he found between it and the features of Napoleon, although the physician of the latter was present. All the hints which the Prince gave him to put a stop to these remarks were in vain.

Spurzheim, whom Prince Metternich had likewise known, he considered very inferior to Gall, though he granted that Spurzheim had improved the nomenclature and classification of the faculties. Indeed, amongst the considerable number of distinguished Germans with whom I have conversed on both Gall and Spurzheim, with the exception of Herr Von K. (mentioned by Mr Combe in your Journal, vol. xvi. p. 351), who was acquainted with the latter in London, I have not met with one who had formed a favourable opinion of Spurzheim's powers, either for original investigation or logical thinking. On this account, and more particularly in consequence of having studied attentively nearly all the writings which were published on Gall's discoveries in Germany before the year 1807,—which have taught me how much Gall *alone* has done to establish the science of cerebral physiology,—I must consider that the merits of Spurzheim have been much overrated in England and America. On this head, I think at some future day to make a fuller communication to your Journal; for I have collected several facts which ought to be put on record, in case a biography of Gall should ever be undertaken. I confess I cannot now look into Spurzheim's work, *Phrenology, or the Doctrine of the Mind*, or read his notes to Chenevix's article in the *Foreign Quarterly Review*, without the disagreeable impression being made upon me, that Spurzheim, to say the very least, was not forward in acknowledging the genius of Gall, whilst he was always careful—sometimes, I have reason to believe, unduly—in putting forward his own merits as one of the founders of Phrenology. In fact, where is there one passage in Spurzheim's writings expressive of a true and generous spirit of admiration of the genius and character of his great master? I trust you will not object to state the above anecdotes and this my mature opinion; for the exaggerated views of Mr Carmichael and others of Spurzheim's claims to rank high as a cerebral physiologist and psychologist, have been inserted in the *Phrenological Journal*.

To fill up the sheet, I add a translation of a passage from the text of Selpert's book on Gall's lectures, which the author affirms in the preface to be a faithful transcript of the words of Gall. On page 33, after valuable remarks on dreaming, somnambulency, clairvoyance, &c., is the following:—

“Can it not easily be imagined, that if there be a peculiar magnetic or galvanic essence (stoff) which could be discharged as something dis-

tinctly material on the separate organs of the brain, and could be so directed that one organ only at a time might be excited by it to the highest degree, whilst all the others remained in sleep,—persons thus excited would be able to discover things in nature (natürliche verhältnisse) otherwise unknown to us?"

That Gall at this time (1805) did not disbelieve in Mesmerism or Animal Magnetism, clairvoyance, &c., Böttiger testifies in one of his notes. I am, &c.

R. R. NOEL.

Additional Anecdotes communicated by Mr GUSTAV VON STRUVE, Editor of the German Phrenological Journal.

MANNHEIM, 10th Feb. 1844.

At Tiefenbrunn, where one of Gall's brothers, and several nephews, grandnephews, and nieces are still living, they preserve some interesting memorials of their illustrious relation, such as medals presented to him in acknowledgment of cures which he effected, portraits, &c. The homely dwelling in which he was born still exists in its primeval state. I lately made a pilgrimage to the place, hoping to discover some letters of Gall to his parents and other relations, but all these precious papers seem to have been lost in the course of time. However, several little anecdotes that I heard from his relations rewarded me for the trouble I took in searching for memorials of our great discoverer. So early as at the age of six, he displayed a strong disposition to observe nature. He always wanted to see how things looked inside; and, to satisfy his curiosity, used to cut open every thing, and especially all animals, he could get hold of—cats, mice, toads, and so on. He was often scolded for soiling the house by these operations, and for spending his money in that way. His mother gave him, on this account, the name of *Batzenschmelzer* (spendthrift). When on his travels through Germany, he was offered a large sum by the inhabitants of Pforzheim, five miles distant from Tiefenbrunn, to lecture there; but he declined, saying that the Pforzheim people might come to his native town, where he delivered gratis a course of lectures in the Rath-haus-Saal, or town-hall, to which auditors flocked from all the neighbouring towns. He seems to have been a very dutiful son. When his mother was dangerously ill, he was called for, and immediately came from Vienna. He preserved her life; for if the medical course which had been resorted to had been continued one or two days longer, he declared she could not have been saved. In the year 1809, when his father became

dangerously ill, he came from the metropolis of France to his little native town. He arrived, however, too late, and found only the corpse of his father.

V. *On the Fallacies of Phreno-Magnetism.* By
Mr T. S. PRIDEAUX, Southampton.

TO THE EDITOR OF THE PHRENOLOGICAL JOURNAL.

SIR,—Believing the so-called science of Mesmero-Phrenology to be altogether a delusion, I feel desirous of stating, as concisely as possible, the reasons which induce me to form such an opinion. Well aware, however, that the bigoted and obstinate scepticism exhibited by many towards the subject of Mesmerism, naturally occasions its supporters to look on the opposition of such parties as a matter of course, and unworthy of consideration, I beg to establish, on behalf of myself, as a firm believer from personal experiment in the marvels of Mesmerism (in the power of prophecy, for instance, which leaves all other wonders at an immeasurable distance behind), a claim to the possession of a fair portion of that *proper credulity*, which is ready to believe the *incomprehensible* upon evidence adequate to the occasion.

To prevent any misconception before entering into any argument on the subject, I am anxious to state, that I fully concurred in the propriety of the course adopted by my friend Dr Engledue in introducing the subject to the attention of phrenologists in his ever-memorable address: to have withheld such interesting facts from any pitiable notions of expediency, would have been high treason against science; to have supposed that such a course could be expedient, would have been an insult to the understanding of his auditors. Facts, however, once promulgated will present various aspects to individuals, according to the different points of view from which they are regarded; and, being impressed at the time with the belief, that never were any facts given to the world more calculated to lead on a superficial examination to erroneous deductions, I drew up a short paper for the purpose of shewing that the phenomena displayed afforded no evidence in support of the localities of the cerebral organs. Leaving town myself immediately after the delivery of the address, I entrusted my observations to the care of Dr Engledue, who read them at one of the meetings of the Association during the session; but as they have never appeared in any phrenological publication, and but very few phrenologists are still acquainted with them—moreover, what is of more importance, as the arguments adduced have never been

satisfactorily answered, and subsequent experience has only served more firmly to convince me of their cogency—I am induced to prefix them on the present occasion to the few additional observations which I am about to offer.

“Remarks on the Excitation of the Organs during Sleep-waking, by T. S. Prideaux ; read before the Phrenological Association in the session of 1842.

“During my first successful experiment in Mesmerism, in October 1841, my attention was excited by observing that some passes, opposite the anterior part of the head, were followed by a fit of laughter ; and in my notes made after the sitting, I inserted the two following queries :* ‘Can individual cerebral organs be mesmerised ?’ ‘Did the laughter proceed from my mesmerising the head in the region of Hope, Ideality, and Wit ; or was it the result of the laughter I had just been indulging in, from seeing the insensibility of the patient to pricking, &c. ?’

“During two or three subsequent sittings, I made several attempts to excite individual organs, with but very partial success ; on one occasion a fit of crying followed my operating upon Adhesiveness, the patient saying she was crying about her friends ; but as, during the sitting, she had, in imagination, been present with her brother at sea, whom she had not seen for some years, I did not feel at all satisfied that the crying was the result of my operating on the organ.

“About this period, circumstances led me to form the conclusion, that the power of reading the thoughts of the operator is a faculty much more frequently developed in the mesmeric patient than is generally supposed ; and, from this moment, I lost all confidence in any result I might produce by acting on the organs, considering it impossible to assure myself that the phenomena manifested, were not the result of a species of acting on the part of the patient ; and I laid aside the inquiry as one which, though most worthy of investigation, could only be satisfactorily prosecuted by an operator and patient both ignorant of Phrenology, and having no *preconceived ideas* as to the phenomena to be manifested.

“The publication of the experiments of Mr Mansfield and Mr Gardiner in this country, and Dr Buchanan in America,

* I wrote Dr Engledue a full account of this sitting the same evening on which it occurred : The return of the post brought me a reply, containing the sentence, “Try and mesmerise individual organs.” I had previously, as above stated, inserted in my note-book the query, “Can individual cerebral organs be mesmerised ?” The coincidence is singular, and clearly shews that the magnetisation of the individual cerebral organs is naturally amongst the first subjects for experiment which suggest themselves to an ardent phrenologist, become a magnetiser.

induced me again to direct my attention to the subject ; and the result is, that from the extreme vividness with which some of the faculties are manifested, but more especially from the fact of feeling being capable of being restored to activity, and again paralysed at pleasure, I have come to the conclusion, that the phenomena cannot, with probability, be referred to acting ; and I now feel bound to avow my belief in the power of the mesmeriser to excite in certain cases special organs in the patient. This being granted, it becomes a question of absorbing interest to the phrenologist, whether this new agent can be made the means of extending the boundaries of his science, by more accurately defining the limits of the organs at present known, and discovering the localities of new ones.

“The circumstance that, by placing the finger over the seat of an organ, and *willing* to excite it, the organ becomes active, was certainly calculated to give rise to the most sanguine expectations ; but a further investigation of the conditions under which the phenomena take place, leads, I fear, to the conclusion, that Nature is more chary of her secrets than to allow them so easily to be wrested from her, and that no such royal path to knowledge lies open to us. Calling to mind the fact, that in many cases the mesmeriser possesses the power of putting parties ‘*en rapport*’ with his patient by the word of command, I was induced to suspect that volition had much more to do with the excitement of the organs than the application of the fingers to their surfaces ; and experiment soon convinced me, not only that it was not necessary to touch the seat of an organ to excite it, but that it might be excited without touching the head at all, by a simple act of volition.

“Without, then, either denying or admitting that faculties may be excited with greater facility by contact with their surfaces, than by an act of volition alone, I think I am warranted in asserting, that the mere fact of their being capable of being excited at all, without any contact or operation directed towards their seat, is sufficient to invalidate any evidence in support of the localities of organs, drawn from such a source.

“Briefly to recapitulate the conclusions at which I have arrived ; they are—that special organs of the patient are capable of being called into action by the agency of the mesmeriser ; but that, as these organs are capable of being excited, not only by touching their seat, but by touching any part of the head, or even by a simple act of volition, without touching the patient at all, no conclusive evidence can be drawn from such experiments as to the locality of the cerebral organs ; and that, though the operator, by an act of volition, can, on certain occasions, and in certain patients, excite a determinate

faculty at pleasure, we have no good ground for concluding that, by operating on a part of the head, the function of which is undiscovered, and willing to excite the particular unknown faculty attached to it, whatever this might be, such unknown faculty would be called into action, and its discovery effected."

Since writing the above remarks, I have had an opportunity of making observations on a variety of cases of mesmeric somnambulism, in which the organs have been excited, both in patients of my own, and in those of my friends ; and the result in every case has been a strengthening of my previous convictions of the utter inadequacy and insufficiency of the phenomena displayed, when narrowly scrutinised, to authorise those inviting conclusions, regarding the position of organs, which have been so frequently, so complacently, but so rashly deduced from them.

The principal objection I have heard brought forward against my opinions, has been the declaration of Dr Elliotson, that he makes no use of his will in the production of mesmeric phenomena. My own experience on the subject has tended to impress me with the belief, that volition is the Alpha and Omega of Mesmerism, and that, *cæteris paribus*, the effect produced is always in relation to the exertion of will employed ; and it would be easy to multiply authority upon authority in opposition to the opinion of Dr Elliotson. But it may be argued, that the non-employment of volition by the Doctor is quite conclusive in establishing its non-essentiality to the production of mesmeric phenomena, and that, however much it may have been employed by others, the successful results of his experiments without it, demonstrate it to have been in all such cases a mere superfluous accessory, and not the efficient cause of the phenomena produced. This argument is a very plausible one, and, did it refer to an experiment performed with physical substances, the presence or absence of which would be cognisable to the senses, would be irresistible : when, however, we take into consideration that it is founded upon such an uncertain and unsatisfactory basis, as the consciousness of an individual of his own mental state, our reliance on it ought to be limited and conditional ; and the more so, from the undoubted fact, that the idiosyncrasy of some minds is such, that their consciousness of their own mental states is of the most vague and indefinite description.

Is it, then, quite certain that Dr Elliotson is correct in his belief, that he makes no use of his will ? A rustic who would say that he used force to lift a sack of flour, would, if asked the question, declare that he employed none to lift a pin ;

and when Dr E. seats himself before a patient, for the express purpose of inducing magnetic sleep, and, with the hope, wish, and desire of effecting this object, goes through a certain operation, and then asserts that he does not employ his volition, it appears to me that his assertion is much on a par, in point of value and accuracy, with that contained in the reply of the rustic.

That Dr Elliotson uses the intense exercise of volition employed by many mesmerisers, without being conscious of it, cannot be for a moment supposed. Let it be assumed that he uses that minor degree, which, it appears to me, must inevitably be present when an inclination is experienced to produce a result, and exertions made for the purpose of effecting it, and we shall find that the results which have attended his practice of Mesmerism, far from militating against the theory of the essentiality of *volition*, actually tend to confirm it, being, in fact, corroborative of the law previously enunciated, that, *cæteris paribus*, in mesmeric operations, the effect produced is in relation to the exertion of *will* employed; for, though he is possessed of a powerful nervous and muscular system, the effects Dr E. produces are much less intense than those elicited by many operators, much his inferiors in these respects. Many of the higher phenomena of Mesmerism, such as community of taste, reading with closed eyes, vision at a distance, prophecy, &c., he has never yet succeeded in producing by his mode of operating; whilst diseases which occupy him two or three weeks in their removal, often succumb to *the more energetic exertion of volition* of other operators, in as many days.

When I maintain the vital importance of volition to the production of mesmeric phenomena, I mean, by that term, those speedy, decided, and powerful effects of the operation of mesmerising, ordinarily so designated, such as sleep, catalepsy, the rapid cure of disease, &c. I by no means wish to deny the possibility of organized beings exerting a certain influence—mesmeric in its nature—on each other, by mere proximity; on the contrary, I believe in the existence of such an influence, and regard it as the probable explanation of the vulgar opinion (ridiculed, like many others, by philosophers, because they are unable to account for it), that the young suffer by close contact—particularly sleeping—with the aged,—the strong and healthy, by too close association with the feeble and diseased. Possibly also the explanation of those singular likings and aversions, which are often instinctively experienced between individuals, must be sought for in a law of a similar nature.

At the outset of our enquiry into the claims of Phreno-Mesmerism, it has always appeared to me that we are encountered

by the question of the *mode of transmission* of the exciting influence to the organs. If the doctrine of volition be discarded, and the effect be said to result from an emanation from the hand of the operator, on what possible theory are we to account for its transmission? What prevents its diffusion over the hair, the integuments, the cranium, its membranes; or, if endowed with a power of penetration, what arrests its progress at the precise spot to be acted upon,* and circumscribes its operation? Hitherto the question of the mode of transmission appears to have been deemed too trifling a one, to arrest the attention of those transcendental philosophers who have occupied themselves in the cultivation of this science. On one theory, and one only, it appears to me, can the application of a stimulus to a point on the surface of the head, produce action circumscribed to a similar spot on the surface of the brain, and that is, the supposition that the stimulus is carried by the afferent nerves to the nervous centres, and from thence reflected to the organ excited; but how far this is a more probable explanation of the phenomena which actually take place, than that which refers them to volition, an agent *known* to be sufficient to produce them independently of any manipulation, I shall leave to my readers.

If I mistake not, I shall clear the vision of more than a few on the subject of Phreno-Mesmerism, by taking a brief review of the results which *should* have taken place, supposing the phenomena elicited were really dependent upon the locality acted upon, and as such decisive evidence of the position of organs, and contrast it with what *has* really occurred.

In the first place, then, if we admit, as most intelligent phrenologists now do, that many organs exist on portions of the head now appropriated to others,† the earliest experimenters would occasionally, whilst operating on the supposed locality of one organ, with a view to elicit its function, have been surprised with the manifestation of some new faculty, of the existence of which they previously entertained no idea.

* Mr Spencer Hall places organs for the various muscular movements in the forehead, around the eyebrow, whilst Mr Atkinson maintains the cerebellum to be the organ of muscular power, and most amusingly informs us, that he is "*quite sure*" that the effects produced by Mr Hall, by magnetising the eyebrow, are caused by the influence passing from the forehead, through the head, to the cerebellum. Mr Hall is, doubtless, equally certain that the effects produced by Mr Atkinson, are caused by the influence passing from the cerebellum, through the head, to the eyebrow; and the public, amidst such conflicting testimony, will, if they be wise, equally decline placing faith in the theories of either.

† It would, we think, be more correct to say, that most intelligent phrenologists admit the probability that some portions of the head now appropriated to certain organs, include also other organs.—ED.

Secondly, The experiments of different magnetisers would have harmonised, and the organs brought to light by one operator would have been confirmed by the experiments of others acting in ignorance of his discoveries, and also by observation of the relation between size and manifestation of function.

Thirdly, There would have been, in the new views thus evolved, that innate beauty and simplicity, and that nice agreement with our previous knowledge of the subject, which invariably characterise the addition of a new fact to a science of which it before constituted an integrant, though undiscovered, portion.

Now, the actual results of the pretended science of Phreno-Magnetism, so far from agreeing with these tests, are wanting in every one of the prescribed requisites—are, in fact, precisely the reverse of what they ought to be, supposing the science to be true. All the phenomena testify to the influence of sympathy or volition.

In the first place, the orthodox believer produces the action of the orthodox organs, and none others, as long as he remains faithful to his creed; inoculate him with the belief in some new faculty, and *presto* he elicits its manifestations; whilst the craziest visionary evokes, with unfailing accuracy, a farce and pantomime which confirm the wildest dreams of his heated imagination. In short, in this happy science the labours of each individual are rewarded by the realization of his own cherished notions; and in proportion to the ignorance of the experimenter, is the astounding nature of his discoveries.

Secondly, Not a single instance can be given, in which two operators, ignorant of the experiments of each other, have arrived at the same results; a faculty placed by one in the forehead, is located by another in the occiput, and by a third at the crown of the head; all is discord and contradiction, instead of harmony and agreement, and up to the present time not one of the many phreno-magnetic revolutions has been confirmed by observation.

Thirdly, Is it possible seriously to ask the question, Whether the new views developed by Phreno-Mesmerism possess the beauty and simplicity ever characteristic of Truth? Was such a compound of folly, credulity, and ignorance, ever before presented to the world under the name of science? To all persons blest with common sense, who know anything of Phrenology, argument would be superfluous to shew the enormous absurdity of the revelations of Phreno-Mesmerism; in fact, no greater satire can be written on the subject, than the enumeration of the names of such faculties as riding, driving, sailing,

rowing, climbing, descending, pulling, pushing, lifting, dropping, shooting, spearing, crouching, springing, childishness, &c.; and if phrenologists wish to retain their character for sanity unimpaired, it really is quite time for them, as a body, publicly to disown and denounce the extravagancies which such visionaries as Dr Buchanan in America, and Mr Spencer Hall in this country, have appended to their science.

The simple state of the case is, that the natural language of every emotion of which man is susceptible, every gesture and act he is capable of performing, can be readily elicited by pointing the fingers to *any part* of the head of the patient, or even to *any part* of his *body*, nay, *without any pointing or manipulation at all*, provided the operator either *wills* or *expects* such manifestations to ensue; the patient being, in fact, for the time, a mere automaton, a passive instrument vibrating obedient to the volition, or in unison with the emotions, of others. That this is the true explanation of the phenomena exhibited, every fact connected with the subject goes to prove; for, considering the extraordinary and almost super-human powers of perception developed during the magnetic state, I attach but little importance to the futile and inadequate precautions, by which some experimenters have sought to ensure themselves from the possibility of being deceived as to the cause of the phenomena.

Whilst, then, admitting that, *a priori*, I can see no ground for supposing it to be impossible, during magnetic sleep, to excite special organs to activity, by stimulating the portion of the surface of the head corresponding to their seat, I contend, that the absurd nature of the actual results obtained proclaims them to have had another origin; and that, when we see the grossest absurdities supported by a certain species of evidence, such evidence (even admitting, which I do not, that its fallacy cannot be detected) is worthless, and insufficient to establish any proposition whatsoever. Perhaps it may be argued, that the phenomena may be produced in two ways, and that, whilst they are sometimes the result of the intimate relation between the patient and operator, at others their efficient cause must be sought for in the manipulations employed. All intractable and absurd results may thus be most conveniently disposed of, by being referred to the first agency; whilst such as are rational and consistent may be claimed for the second. This supposition, however, is more ingenious than probable. What becomes of the power of local stimulus, when an operator excites the organ of Benevolence by placing his finger upon Destructiveness? If the touch of the finger of the operator possessed the power of exciting the organs, independently

of volition, then, in such a case, we ought to have both organs excited—Benevolence, in obedience to the will of the operator, and Destructiveness, in consequence of the local manipulation. No such result, however, takes place. Where also, I would ask, are those grand additions to our science, which the employment of such a splendid engine of phrenological discovery as that comprised in *the power of exciting unknown organs by laying our finger on them*, would have bestowed on us, supposing we really possessed it? Above all, how are we to explain the fact, that hundreds of individuals have practised Mesmerism during the last fifty years, and thousands of persons been mesmerised on all parts of their bodies, without the peculiar phenomena of the excitation of the cerebral organs once occurring *till the operators became phrenologists*? How is it that, amongst the extensive records of continental Mesmerism, we have never been greeted with some such announcement as the following?—"During the second sitting, and whilst the Marquis of Puysegur was employed in mesmerising the side of the head of his patient, the latter, a man of great muscular power, suddenly, and without any assignable cause, appeared to become possessed with the most uncontrollable fury; with one blow of his fist he felled his mesmeriser to the ground, and was in the act of repeating his attack, when the Marquis's domestics, alarmed by the noise, fortunately came to the assistance of their master," &c. &c.

Amongst the criteria I have enumerated for testing the claims of Phreno-Magnetism, I have purposely omitted to notice that which would be afforded, by the discovery of some well-established phrenological organ by a magnetiser and patient entirely ignorant of the science. Could we, in such a case, *assure* ourselves of the existence of the requisite conditions, I can imagine none which would be more convincing and conclusive; but when we come to reflect on the universal diffusion of busts marked with the organs, and couple this with the astonishing memory frequently displayed by magnetic patients of events long past, and no longer remembered by them when in their natural state, we shall find a degree of uncertainty thrown over this species of testimony, which must ever prevent its being deemed satisfactory.

I would also observe, that a case of this kind is at once rendered worthless as evidence, by the presence of any phrenologist during the experiment. A friend of mine lately informed me that he could vouch for the fact of the manifestations of well-established phrenological organs having been elicited, by an operator and patient both unacquainted with the science; adding, that the circumstance was regarded as quite decisive,

in establishing the reality of the phreno-magnetic doctrines, by all who witnessed it, and ought to remove all further scepticism on the subject from my own mind. On enquiry, however, I found not only that there were many phrenologists present, but that the whole of the phreno-magnetic experiments were directed by one of the number requesting the operator to touch the various parts of the head he indicated. The explanation of this case is very simple, and is to be sought for in the mental relationship of the patient with other individuals present besides the operator, a phenomenon of every-day occurrence in Mesmerism. A gentleman once interrogated a patient of mine for half an hour, respecting the furniture of his house ; every query was answered correctly ; yet the patient had never been within many miles of his residence, and I was equally ignorant on the subject. This gentleman was only present at the *séance* as a spectator, and no means whatever had been employed to place him *en rapport* with the patient, to whom he was an entire stranger. I give this case merely as an illustration, having seen innumerable others of the same kind ; and plenty of a similar description may be found in the works of the continental writers on Mesmerism. My own belief is, that the power of reading the thoughts of the operator, and often those of others, is one of the most frequently developed phenomena which attend the mesmeric trance ; and that it is in reality the true explanation of nine-tenths of the supposed cases of ultra-vision and other marvels, though its possession is generally very reluctantly admitted by the patients themselves—a circumstance which need not surprise us, if we consider what an embarrassing avowal it is for them to make.

In making the preceding observations on Phreno-Magnetism, I have been actuated solely by a desire to arrive at the truth ; and I am not conscious of the existence in my mind of any prepossession on the subject likely to bias my judgment, or induce me to treat the question unfairly ; indeed, my feelings might be supposed to draw me in the opposite direction, not only as being a warm supporter both of Phrenology and Mesmerism, but as being also the first person in the country, to whom the idea of exciting the cerebral organs during the trance, by magnetising their localities, occurred, and the first*

* My experiments preceded Mr Atkinson's, yet this gentleman has recently put forward a claim to be considered the discoverer of Phreno-Magnetism in this country. Were the discovery, however, a reality, and not a delusion, precedent and common sense alike dictate that the credit of it should be given to Messrs Mansfield and Gardiner, as being the first who published it to the world.

who made experiments on the subject ;—experiments I was only led to discontinue, from a perception of those sources of fallacy, which I am *still* of opinion invalidate all the results hitherto obtained on the subject.

SOUTHAMPTON, January 1844.

II. CASES AND FACTS.

- I. *Observations on the Connection of Insanity with Diseases in the Organs of Physical Life.—Illustrated by a Remarkable Case.* By J. COWLES PRICHARD, M.D., F.R.S., &c. (From the Provincial Medical Journal, Jan. 27, 1844.)

In most of the necroscopical researches into the causes of mental aberrations which have been set on foot, either in England or in France, the principal, if not the almost undivided attention of anatomists has been directed to the discovery of morbid changes in the brain. Our German neighbours, who have been thought, in many other departments of knowledge, to take wider and more comprehensive views, though not to be more practical or sound in judgment, than either the French or English, have, in the pursuit to which I have adverted, taken a different course. The school of Nasse, in particular, have, in numerous publications,* directed the attention of pathologists to connections which are often to be traced between the different manifestations of insanity and various morbid phenomena discovered after death in the organs subservient to physical life. The same path has been followed more recently by Jacobi, whose various works on subjects connected with insanity, equally remarkable for the practical sense as for the deep philosophical investigation which they display, entitle their author to the highest rank among the living writers of this class.† Jacobi even goes so far as to call in question the established opinion of this time, which regards the disorders of the vascular, the gastric, the enteric, the hepatic, and the progenitive systems, as associated with morbid states of the mental faculties in a remote and secondary degree ; while affections of the brain are looked

* In a variety of papers in the *Zeitschrift für Psych. Aerzte*, 1818, and the following years.

† In Dr Max. Jacobi's *Beobachtungen über die Pathologie und Therapie der mit Irreseyn verbundenen Krankheiten*. Elberfeld, 1830. Also different papers in the *Zeitschrift für die Beurtheilung und Heilung der Krankhaften Seelenzustände*, von Max. Jacobi und Fr. Nasse. Berlin, 1838 u. s. f.

upon as immediately and essentially connected with the manifestations of disordered intellect. Jacobi has not expressed his opinion precisely in this manner ; but it would appear, from a variety of passages in his works, that he looks upon effects produced upon the sensorium and the mind, through the medium of the stomach, or any of the viscera of physical life, as not less immediately brought about by the action of the material organism on the intellectual or sensitive power, than the impressions produced in the mind by a blow on the head, or by any powerful agency exerted immediately on the brain.* This sequence, as he thinks, is more easily understood, as it is more frequently or more distinctly exemplified in a variety of phenomena, both healthy and morbid, connected with the state of the feelings or moral faculties, and their manifestations. The phenomena of moral insanity, or of a disordered state of the affections and moral feelings, without any corresponding lesion of the understanding, or of the reasoning faculties, furnishes, or appears at least *prima facie* to furnish, a firm ground whereon to maintain the negative position in regard to the participation, or, at least, the primary influence of the brain, in the development of an extensive series of psychological phenomena.† Herein Jacobi assents to the opinion which I ventured some time since to put forth ; and which was, at first, thought extremely improbable ;—that a mental disorder exists, fully to be recognised by particular trains of symptoms, in which the moral, not the intellectual, part of the human mind is essentially disturbed. To this I affixed the name of moral insanity ;‡ while, to another class of mental disorders, consisting in irregular affections of the will, or in unaccountable voluntary impulses, without motive or rational design, the designation of instinctive impulses, or instinctive insanity, is equally applicable.§ I shall not attempt, at present, to enter into the

* Zeitschrift, B. 1. S. 78.

† Such a position can be maintained only by those who persist in regarding the brain as a single organ.—ED. P. J.

‡ The existence of moral insanity was recognised by Pinel and others long before Dr Prichard published his views ; indeed, he himself has stated this in the Cyclopædia of Practical Medicine. To phrenologists, moral insanity has long been familiar.—ED. P. J.

§ This last is the disorder described by Pinel, under the title of "*Manie sans delire*." It was observed by M. Esquirol, in his last work, that this affection is totally distinct from that which I have described first in the Cyclopædia of Practical Medicine. The term moral insanity is now in common use among the superintendants of lunatic asylums, both in Britain and in the United States, as the distinguishing term for this species of mental disease. It is said that, in some of the United States, nearly one-eighth of the whole number of lunatics committed by the courts belong to this class.

rationale of the class of mental disorders to which this writer alludes ; or to discuss the question, whether in those cases of insanity in which the primary cause, or the primary morbid change, has its seat in the organs of physical life, there always intervenes a morbid condition of the brain, which last is the immediate antecedent of disturbance of the mental faculties. The most important thing, in a practical point of view, is to establish the fact, that the principal and fundamental cause of insanity is, in many instances, to be sought, not in the brain, but in some other region of the body. Of this, I believe that most persons who have enjoyed many opportunities of observation, and are capable of making a good use of them, are now well convinced.* The opinion, however, is yet so far from being the prevailing one, that it is worth while to lay before the public any striking and decided example that may carry strong conviction on the subject ; and this precisely is the object of the present communication.

A. B—, a lady highly accomplished, and of great mental endowments, pious, affectionate, and sincere, when about thirty-five years of age, without any assignable cause, except, perhaps, an over-strained attention to a course of study which, from charitable motives, she had been induced to undertake, and from consequent neglect of exercise and the means of promoting her bodily health, became suddenly low-spirited and hypochondriacal. During the early period of her illness, she fancied herself to labour under a variety of complaints, over which she was ever brooding, and suggesting causes and remedies. Her whole temper and character became changed. Formerly devoted to her duties, and to works of benevolence to others, she now thought only of herself, and her complaints. She was even indifferent about the state of her own person. When her complaints assumed a definite form, they always referred to her stomach and alimentary canal. She thought herself over-filled with food when she had taken a very small quantity ; and, under this impression, she almost starved herself.

After many months spent under the unremitting attendance of her mother, and her near relations (during which time she made repeated attempts to escape out of the house, in order to elude importunities, and almost compulsion, to take food), it was determined by her friends (who found it impossible,

* We fully admit the fact in question ; the words “ principal and fundamental ” not here signifying *immediate* or *proximate* cause. The subject has been discussed by Dr Combe in a paper on Hypochondriasis, published in this Journal, vol. iii. p. 51. See also his work on Mental Derangement, p. 143.—Ed. P. J.

otherwise, to prevent her from sinking under exhaustion) to send her to a lunatic asylum, where she passed the last years of her life. While there, she was induced, though not without great difficulty, and a constant threat of compulsion if she resisted, to take a moderate quantity of the most nutritious and digestible food. Her body, which had been very much emaciated, was then restored to its usual degree of fulness; she had always been of light and slender frame.

It was her constant entreaty to be spared the pain occasioned by taking food. She was ever intent upon the means of dissuading her friends from forcing her to eat; and when this was given up as hopeless, she employed her utmost effort to elude their attempts. Every imaginable stratagem was put in practice. Formerly high-minded and upright, she now descended to the meanest tricks, in order to promote this one object, to which her mind was ever directed.

At her entreaty, the prescribed quantity of solid food was decreased from time to time, and a milder and more fluid diet substituted for it. On these occasions she became weak and feeble, and emaciated; and it was found necessary, although her complaints of suffering were rendered more distressing and importunate, to return to a fuller quantity; but this was always the smallest quantity that could support her strength. Notwithstanding her complaints, there was no perceptible indication of abdominal disease.

After remaining some years nearly in the same state, she was suddenly attacked with diarrhoea, which, in a few days, notwithstanding all ordinary means used to stop it, carried her off. She retained acute intelligence, and all her morbid impressions, to the last hours of her life.

The autopsy was made carefully two days afterwards. The following were the most remarkable appearances:—

The cranium was remarkably light and thin, and permeable to light.

Between the layers of the arachnoid was much fluid. This membrane was opaque where it covers the posterior lobes of the cerebrum, and raised by fluid effused between it and the pia mater, separating the convolutions. Ventricles full of perfectly colourless serum. The brain and dura mater were very exsanguineous. Altogether, the fluid effused amounted to five ounces.

The lungs were extensively beset with tubercles.

But the ultimate, if not the primary, cause of the disease was apparent in the intestinal canal. The ileum was beset, through nearly its whole extent, with large, round, or irregularly-shaped patches, occupied by congeries of tubercles. On

these patches were extensive ulcerations, of irregular surface, and with much thickened edges. In many parts these ulcerations occupied the whole circuit of the intestinal tube. The tuberculous matter had been deposited underneath the serous coat, forming a hardened base for the ulcerations which took place on the mucous surface.

This dissection afforded proof that the perpetual complaints made by the patient of pain and suffering in the abdomen had an organic cause, and were not unreal, as it had been sometimes suspected. As these complaints had been uniform, and had continued from the commencement of the disease, it may be inferred, as highly probable, that the organic disease in the intestinal canal had been coëval with the mental disorder, and the foundation of the whole train of morbid symptoms. The history of this case furnishes, on this view, an example of insanity mainly dependent on a diseased state of organs very remote from the brain. Serous effusion, indeed, existed within the skull; and this is known to be a very frequent phenomenon in cases of insanity; but it may, perhaps, be regarded rather as an effect than a cause.* Tubercular disease in the lungs is likewise frequently discerned in melancholic patients, as Esquirol has particularly observed; but this rather supervenes upon than occasions melancholia. On comparing all the phenomena which the history of the case displays, I think it, on the whole, manifest, that the abdominal disease was the primary deviation from health; but how this may have operated in giving rise to the complaints which appear to have resulted, I do not pretend to explain.

II. *Phreno-Magnetic Cases.* By Mr T. B. BRINDLEY.

TO THE EDITOR OF THE PHRENOLOGICAL JOURNAL.

STOURBRIDGE, Jan. 6. 1844.

SIR,—Should the following facts in Phreno-Mesmerism, attested by respectable witnesses, be deemed worthy of a place

* In 120 out of 216 cases, Greding found effusions between the dura and the pia mater. Between the pia mater and the surface of the brain, in 29 out of 100 maniacs. He found the lateral ventricles in 28 very full of serum; in 23 ready to burst; in 10 out of 24 melancholics astonishingly distended. Third ventricle quite full in 57 of 100 maniacs; and in 16 of 24 melancholics. Fourth ventricle ready to burst in 80 out of 100 maniacs, and empty only in 3; completely distended in every one of 24 melancholics. By the same writer it was observed that the skull was remarkably thick in 167 out of 216 cases. In many cases it was remarkably *thin*, and holes were found in the inner table in 115 out of 216 cases.

in your valuable pages, their insertion will oblige, Sir, your obedient servant,

T. B. BRINDLEY.

CASE I.

Lucy Griffin, servant to Mr Granger, Halesowen, was thrown into the mesmeric sleep in a few minutes, at a *conversazione* given by me on the 22d December last, to John Meredith, Esq., Bellevue, Wm. Moore, Esq., Halesowen House, T. Whitmore, Esq., J. Humphrey, Esq., H. Adkins, Esq., surgeon, and many other gentlemen. The girl knew nothing of Mesmerism, having never seen a person mesmerised; and of Phrenology she did not know even the meaning. After testing her in different ways, to prove that she was really in the mesmeric sleep, I demagnetised *Hearing*, and excited *Language* (for she was in a complete state of isolation). We then spoke to her, but she could hear no one but the operator. After cautioning all persons present against naming the organs, I proceeded to excite *Self-Esteem* by contact; when she immediately raised herself in her chair, tossed her head with much dignity, and informed me, "that she thought herself much too good to associate with me." Moving my finger to *Adhesiveness*, she clung to me, and exclaimed, "You will not leave me; you *shall* stop with me." On my finger being applied to *Philoprogenitiveness*, she talked of children, and of young animals, sometimes nursing the former, and calling the latter. *Conscientiousness* being excited, led to a sense of duty. "She must attend to her master's business," she said, "or it would be defrauding him of her time." *Veneration* being touched, she rose from her chair and said, "Well, I must go." "Where are you going?" "To church." "What are you going there for?" "Why, to worship God, to be sure." "Oh, I would not go to church if I were you; it's so dull; come and go to a dance." "Ah! you wicked wretch! I would not go for the world." She then began to scold me for my sinfulness, imagining me to be some other person; but, upon placing my finger on *Individuality*, she knew me instantly. *Benevolence* excited, produced generosity; *Acquisitiveness*, an inclination to get hold of what she could, and keep what she had; *Ideality*, to talk about the moon, groves, and poetry; *Wit*, to laugh and say funny things; *Firmness*, to refuse to do any thing when she had made up her mind, though repeatedly solicited; and *Secretiveness*, to refuse to tell me anything I asked her, remarking, "that she kept her own secrets." On the whole, thirty organs, as marked on the bust, were excited (the rest we had not time to

operate on), and the correspondent manifestations evolved, without a leading question having been put, a suggestion offered, or, in one solitary instance, my will being exercised. To the truth of these statements, the gentlemen above mentioned, with many others who were present, will gladly bear their testimony.

CASE II.

On the 1st of August last, I mesmerised Mr John Braund, Stourbridge, in the presence of the following persons:—Messrs Dykes, Harper, Wilkins, Porter, Perrens, Gibson, Nickholls, Allen, and many other gentlemen. When in the mesmeric trance, I said to him, “How do you do, Braund?” “Very well, thank you; what should ail me?” “Why, you are asleep, are you not?” “Asleep? No! can’t you see my eyes are open?” “No, they appear to me to be closed.” “Why, then, you must be blind—that’s all.” “Why, do you see who is in the room?” “Yes.” “Who?” He then named correctly all the twenty persons present, though several had come into the room after he was asleep, and had never spoken since they entered. Mr Perrens now left the room, passing out at the door behind him, when the patient immediately asked, “Where is Perrens going?” Perrens then came softly into the room again, and lay on the sofa. “Ah, that’s right, Perrens; take it easy,” said the patient. A bust was then placed behind his head, and he was requested to say what it was. He answered me by another question, viz., “Whether I had ever seen a man’s head cut off, shaved, and ticketed.” “Nonsense,” said I; “tell me plainly what it is.” “Why, what a confounded bore you are; I don’t know what you call it; it is a head made with chalk though, and ticketed.” A book, a writing-desk, a glass, and a watch, were next placed behind his head; each of which he named instantly, and by the last told the time correctly. A circular, produced by some one who was sceptical, was held behind his head, and he read it at once without hesitation. After cautioning all parties present against speaking, I proceeded to excite the various organs by contact. *Veneration* being touched, he raised his hands and bowed his head, as if in adoration of the Supreme Being, whom he immediately addressed in the most beautiful and impressive manner upon *Language* being excited. The finger being removed to *Benevolence*, he gave away every thing he had in his pockets, and then took off his coat, which he was about to give me; but on removal of my finger to *Acquisitiveness*, he grasped it with one hand, and rifled my pockets with

the other. *Wit* being excited, produced immoderate laughter, and a ludicrous tale about his grandfather's steam wheelbarrow making off with his grandmother, since when, though advertised, and a handsome reward offered for its discovery, it had never been heard of, and was supposed to have been changed by some evil genii to an aerial steam-ship, and had paid a visit to the moon. *Self-Esteem* being touched, he folded his arms, raised his head, and, looking big, observed, "I care for no man; I'm superior in every sense, infinitely superior any day." *Love of Approbation* excited, led to a defence of himself from some imaginary imputation of an unpleasant kind; *Firmness*, to clenched hands, and a look of fierce and stern determination; *Amativeness*, to clasping to his bosom the imagined lady of his love; *Melody*, to singing the Old Hundredth Psalm; *Combativeness*, to a hard blow on the operator's face; *Destructiveness*, to the utterance of a resolution "to kill every one, for the honour of his country;" *Causality*, to the inquiry, "who was the founder of a charity school;" *Comparison*, to the comparing of two houses with each other; *Eventuality*, to talking about the corn-laws, and the Corn-law League, to which he is no friend; "?" at the back of *Ideality*, to the most sublime language and attitude; and the whole of the other organs marked on the bust, to their correspondent manifestations. All this was produced on my part without the least suggestion, or exercise of the will, and on his without the slightest knowledge of Phrenology, even of the names of the organs; his attention having been directed to languages, rather than the sciences. Of Mesmerism he did not believe a syllable when he sat down to be mesmerised, and his provoking incredulity alone induced me to make the attempt.

CASE III.

On the 4th of September last, in the presence of Messrs Braund, Jones, Trueman, Hopkins, Webb, and others, I mesmerised Pamela Price, a servant girl of Mr Webb's, Stourbridge. She was sent into the coma in three minutes; this being the first operation, and she being a perfect stranger to Mesmerism and me. While in the comatose state, I succeeded in producing the most beautiful manifestations of every one of the organs marked on the bust. *Ideality* being excited, she talked of the earth, the sea, and the sky, and repeated poetry; and all this *without my finger being shifted in the least from the exact point where I first placed it*. In touching *Colour*, too, *I never moved my finger from one point, though she spoke of several colours*. As to

Philoprogenitiveness, if I touched the lower part of it, it produced the manifestation of fondness for animals; and if I touched the upper part of the organ, fondness for children: but when I touched the same places again, the direct reverse effects were produced, and the same uncertainty manifested itself if I touched the centre. This I have noticed in all my patients; which seems to favour the idea of *Philoprogenitiveness* being but a single organ, devoted to the love of offspring [and other feeble creatures] in general, as it has hitherto been considered, and not as a group of organs as some have imagined. So, again, with *Alimentiveness*; when excited, it produces the desire for food in one instance, and in another for drink, though you touch the very same portion of the organ, be it the upper, lower, or central part. These facts should lead us to make further experiments before we admit that the subdivision of most of the present organs made by Mr Spencer Hall, and partially adopted by Mr W. R. Lowe, has any existence in nature.*

III. *Observations on the Size and Shape of the Head in the Insane.* By AMARIAH BRIGHAM, M.D., Medical Superintendent of the Retreat for the Insane at Hartford, Connecticut.

We have carefully measured the heads of 116 insane persons—61 men and 55 women; and also the heads of 20 sane men, and 20 sane women. They were measured in three different directions:—1st, Around the head—its largest circumference; 2d, From the opening in one ear over the head to the other; 3d, From the root of the nose, or lower part of the forehead, to the nape of the neck, or occipital protuberance. The points from which we measured were the same

* Mr Braid of Manchester, in a communication with which he has lately favoured us, dissents altogether from Mr Hall's doctrine here alluded to. "Mr Lowe's paper," says he, "went to support this, in reference to Colour; but I can make patients go over the colours of the spectrum, without shifting the point of contact, or even without contact at all. When the idea of colour has been excited, ask, What colour is it? The patient will name some colour. Then say, But what colour is it now? and the question will suggest a different colour; and thus you may go on to any extent you choose, owing to the vivid state of imagination. If you associate these ideas in the mind with contact with *any parts* of the body, the mere touch of such parts may be sufficient ever after to recall the ideas. These are curious and important facts, and give no countenance to such notions as those advanced by Mr Hall, and others of the multiplication school."—ED.

in all, and we carefully guarded against any difference from the varying quantity of hair, &c. We found that the two last measurements—that over the head, from ear to ear, and that from the forehead to the nape of the neck,—in the same individuals, were nearly alike. We also found, with scarcely an exception, that those whose heads were the largest in one direction, were also in the others.

In 4 insane men, the largest circum. was 24 inches; other directions, 15½						
12	...	...	...	23	...	15
17	...	...	...	22½	...	14½
17	...	...	...	22	...	14
11	...	...	...	21½	...	13½
<hr/>						
61						
<hr/>						

In 4 insane women, the largest circum. was 22½; other directions, 14½						
17	...	...	...	22	...	14
20	...	...	...	21½	...	13½
14	...	...	...	21	...	13
<hr/>						
55						
<hr/>						

In 3 sane men, the largest circum. was 23½ inches; other directions, 15½						
11	...	...	...	22½	...	15
4	...	...	...	22	...	14½
2	...	...	...	21½	...	13½
<hr/>						
20						
<hr/>						

In 8 sane women, the largest circum. was 22 inches; other directions 14						
10	...	...	...	21½	...	13½
2	...	...	...	21	...	13
<hr/>						
20						
<hr/>						

Although, according to these admeasurements, the size of the head of the insane is similar to that of the sane, yet I have always noticed in lunatic asylums some whose heads were of an unnatural shape. We have a few such. Still, a large majority of our patients have what would and should be called good-sized, and good-shaped, heads. This, however, has no bearing on the doctrine, which I consider established, that the brain consists of a plurality of organs, each engaged in a separate distinct office, the production of a special intellectual or moral faculty; as insanity is caused by the disease, not the size of an organ, though I apprehend unusual size of any one organ may have an influence in predisposing to this disease.—*Eighteenth Report on the Hartford Retreat, 1842.*

IV. *Cases Confirmatory of the Proposition that the Anterior Cerebral Lobes are the seat of the Intellect.* (Extracted from Dr BRIGHAM'S Inquiry concerning the Functions and Diseases of the Brain).

Pathological investigations have not only shewn us that different parts of the brain have different functions, but have rendered it probable that the anterior lobes of the brain are the seat of the more important of the intellectual faculties. "M. Breschet," says Andral, "has published the remarkable case of a girl, fifteen years of age, in whom the two anterior lobes were wanting. At the bottom of, and behind the membranous pouch which replaced them, the two *corpora striata* were seen exposed. The head was very well formed. The girl was plunged into a complete state of idiocy; it was necessary to dress her and feed her; she was averse to walk, though she had the power of moving all her limbs with ease, and with equal facility; she was usually sitting, and remained so for entire days, alternately inclining the head from one shoulder to the other; vision was entire; the most perfect indifference existed for the quality of odours."

In the 14th volume of the *Medico-Chirurgical Review* is the following notice of a case of congenital absence of the anterior lobes of the brain. "In the annual report of the New Anatomical Society of Paris, a preparation was shewn by M. Lacroix, exemplifying the above malorganization. The secretary of the society makes use of the following words:—"If the opinion which assigns to the anterior lobes of the brain the privilege of presiding over the higher intellectual operations, needed any new confirmation, it would find a powerful argument in its favour, in the case reported by M. Lacroix. In that case there was a complete congenital absence of the anterior lobes of the cerebrum, which were replaced by a collection of transparent serum, communicating freely with the ventricles. This physical condition was accompanied, not by a perversion, but by an almost entire nullity, of the intellect and moral functions. Here was an experiment made by nature, more valuable for physiology than any vivisections of the anatomist." The secretary remarks that this case tells both for and against phrenologists; for them, as shewing the seat of intelligence to be in the anterior part of the brain; against them, as shewing that their skill could not have detected the cause of the idiocy; since the forehead was well formed,

though full of water, and all the prominences well marked.* Almost at the same time that the above preparation was shewn, another came under view, where the left hemisphere of the brain was found atrophied to one half its original volume, without any loss of intellectual faculties,† the other lobe being entire. The atrophy was occasioned by an accumulation of fluid in the lateral ventricle of the side, and the opposite half of the body was completely paralytic." Otto remarks, in his *Compendium of Pathological Anatomy*, that in idiots the front lobes are usually small and shallow. This is confirmed by the observation of others. I do not know of any case on record of the anterior lobes of the brain being diseased without manifest disturbances of the intellect; but cases of disease of portions of both posterior lobes have been witnessed without producing any noticeable change in the mental powers.

III.—NOTICES OF BOOKS.

- I. *Mental Hygiene, or an Examination of the Intellect and Passions, designed to illustrate their Influence on Health and the Duration of Life.* By WILLIAM SWEETSER, M.D., late Professor of the Theory and Practice of Physic, and Fellow of the American Academy of Arts and Sciences. New York, 1843. 12mo, pp. 270.

Although the very important subject of this volume has already been treated of pretty largely by medical writers,‡ there is, unquestionably, too much truth in the statement of Dr Sweetser, that not only has the influence of intellect and passion upon health and longevity been but imperfectly understood and appreciated, in its character and importance, by mankind at large, but those of the medical profession, even,

* No phrenologist has claimed the power of detecting every cerebral disease, by observing the form of the head.—ED.

† "Any known loss," would probably be a more accurate statement. ED.

‡ See, in particular, Dr Falconer's *Dissertation on the Influence of the Passions upon Disorders of the Body*, 1784; Dr Brigham's *Remarks on the Influence of Mental Cultivation and Mental Excitement upon Health*, 1832; the same author's *Observations on the Influence of Religion upon the Health and Physical Welfare of Mankind*, 1835; the works of Dr Andrew Combe on *Physiology applied to Health and Education*, and on *Digestion and Diet*; and Mr Newnham's *Reciprocal Influence of Body and Mind Considered*, 1842.

concentrating their attention upon the physical, are too prone to neglect the mental causes of disease ; and thus may patients be subjected to the harshest medicines of the pharmacopœia, the true origin of whose malady is some inward and rooted sorrow, which a moral balm alone can reach. "Whatever," says he, "may be our speculative views in regard to mind, however distinct in its nature we may deem it to be from matter, yet that it is essentially involved with our organization, and that between the two a reciprocal influence is constantly and necessarily maintained, is too apparent for denial. Of the mental constitution and its laws we have not the faintest knowledge, except as they reveal themselves through the medium of certain material conformations. Wherever these are discovered, we are convinced that mind is, or has been, conjoined with them. Without such arrangements of matter its astonishing phenomena have never been declared to us. The mutual relationship and constant interchange of influence subsisting between our mental and corporeal natures can hardly have escaped even the most careless observation. The functions of either being disturbed, more or less derangement will almost necessarily be reflected to those of the other. What frame so hardy as to escape the agitations and afflictions of the mind ? and what mind so firm as to remain unharmed amid the infirmities and sufferings of the body ?"

In Dr Sweetser's work, the subject is more fully and systematically considered than in any previous publication with which we are acquainted. His style is clear, simple, and impressive ; and the reader at once perceives that the author's object has not been mere book-making, but the advancement of human improvement and happiness, by enlightening the public on matters with the practical importance of which he is deeply impressed, and to which he has devoted much serious attention. From ignorance of such facts and principles as those inculcated in his volume, the most lamentable results have frequently ensued : health has been ruined by mental causes which might have been removed or alleviated ; and, on the other hand, the intellect has been weakened, and the moral feelings perverted, by sheer inattention to bodily health.

In the first division of his work, Dr Sweetser considers the *intellectual* operations, and, in the second, the *emotions or passions*, in relation to their influence on the functions of the body at large. The intellect, he correctly observes, is, in comparison with the passions, a rare source of bodily disease. The infirmities so apt to be witnessed in those whose pursuits are of a more strictly intellectual character, he considers to be

much oftener imputable to the agency of passions roused by, and blended with, the intellectual efforts, or else to sedentary and other prejudicial habits of life, than to the labours of thought. Experience shews that the health of studious men is impaired, and their lives shortened, only when their toils are pursued to injudicious excess. "I mean not to assert," says he, "that those in whom the intellect is chiefly engaged, will enjoy the same athletic strength, or display equal muscular development, with others whose pursuits are of a more mechanical character,—for Nature seldom lavishes upon us a full complement of her various gifts ;—but I do believe that, under prudent habits of life, and with a naturally sound constitution, they may preserve as uniform health, and live as long, as any other class of persons." He is eloquent in praise of a due amount of mental exercise, as a promoter of health and happiness. "The mind, like the body, demands exercise. That the proudest faculties of our nature were intended for slothful inaction,—that talents were given us to remain buried and unproductive,—is repugnant alike to reason and analogy. There is, in fact, no power of the living economy, however humble, but needs action, both on its own account, and on that of the general constitution. So closely united by sympathies are all our functions, that the judicious exercise of each one, besides conducing to its individual welfare, must contribute, in a greater or less degree, a healthful influence to every other." The exertion and delight which accompany the acquisition of knowledge, diffuse a wholesome excitement through the system. "There is a pleasure in the exercise of thought, in whose kindly effects all the functions must in some measure participate. Agreeable and well regulated studies, or mental occupations, are as essential to the integrity of the mind, as are judicious exercises to that of the body ; and as the health of the latter, as all admit, conduces to that of the former, so also, as it will be my constant endeavour to shew through the course of this volume, does a sound state of the mind communicate a salutary influence to the functions of the body." Mental inactivity, he adds, is, in the existing constitution of society, the occasion of an amount of moral and physical suffering, which, to one who had never reflected on the subject, would appear scarcely credible. Witness the *tedium vitæ* so apt to beset those whom fortune has freed from the necessity of actively exerting their powers in the ordinary pursuits of life, and which usually torments that ill-advised class, who, though destitute of mental resources qualifying them to spend their time agreeably, renounce a trade or profession, in the hope of enjoying, in tranquillity and ease, the fruits of the ex-

ertions of many years. The truth of the following remark will be felt by every student. "Men of different constitutions, habits, talents, and education, will, as might be expected, require different sorts and degrees of mental action. Such as are endowed with vigorous intellectual powers, and in whose exercise they have been long accustomed to indulge, are liable to suffer the most when their minds are left unemployed. Those, for example, who are fond of study, and have been long used to devote a part of their time to its prosecution, may even sustain a manifest injury, both in their moral and physical health, by a sudden and continued interruption of such habit; a painful void being thus left in the mind, indirectly depressing its feelings, and, by a necessary consequence, all the important functions of life."

If, however, the intellectual faculties be *overstrained*, evil results will follow not less surely than if their exercise be neglected: not only will the intellect itself be impaired, but the functions of the body in general will suffer. Among the rules of health which the author considers most essential to be observed by those whose pursuits are more especially of a mental character, he specifies, in the first place, temperance in eating and drinking: "Persons of studious and sedentary habits neither require, nor will they bear, the same amount and kind of food, as those whose occupations call forth greater physical exertion, and produce, consequently, a more rapid consumption of the materials of the body. If such, therefore, will persist in eating and drinking like the day-labourer, they must look to experience indigestion, and all its aggravated train of miseries. Or, even should they escape dyspepsia, the yet graver ills of excessive repletion, as inflammations and congestions, will be likely to overtake them." Regularity of meals and thorough mastication are next enforced; and afterwards, muscular exercise in the open air, to which, in the author's opinion, from two to four hours a-day should be devoted, according to constitution, and to the quantity and quality of the food. With regard to sleep, to the prodigal indulgence in which so much evil to body, mind, and estate, is generally attributed, Dr Sweetser says, that observation of his busy and ambitious countrymen has led him to doubt, whether, on the whole, more injury is not to be ascribed to its deficiency than to its excess. Different constitutions require different amounts of sleep; but in the majority of persons, as much as seven hours of the twenty-four ought, he thinks, to be appropriated to it. We concur with Dr Sweetser on this subject; and add, in confirmation of his opinion, the following quotation from Lockhart's Life of Scott:—"In general, both

as a young man and in more advanced age, his (Sir Walter's) constitution required a good deal of sleep, and he, on principle, indulged it, saying, 'he was but half a man if he had not full seven hours of utter unconsciousness.'"—(Chap. viii.)

"Again," says Dr S., "men of intellectual application should frequently relax their minds by amusing recreation—mingling in cheerful society, and joining in its gay diversions; otherwise they are apt to become gloomy, irritable, and misanthropic—states of feeling which are always at enmity with our physical wellbeing. Let them unite, therefore, in the laugh, the game, the dance, or any of the innocent frivolities of society; the dignity of the most erudite and talented need not suffer in consequence, while the health, from the moral exhilaration thus procured, will be sensibly benefited. It is certainly worthy of inquiry, if the learned and distinguished of the present day, or at least among ourselves, do not cherish an undue contempt for the light and healthful amusements of society, and thereupon unreasonably exclude themselves from their participation. Among the ancients the greatest souls did not disdain occasionally to unbend and yield to the laws of their human condition."

The author advises students to pursue their labours in large and airy apartments, as a means of at once invigorating the body and animating the mind. He thinks that few can spend advantageously, and without hazard to health, more than seven or eight hours of the twenty-four in close mental application. As the brain grows weary, its productions flag, and "smell of the lamp;" so that, in truth, nothing is gained by over-tasking it. From the following remarks may be deduced the inexpediency of forcing much intellectual occupation upon those whom Nature has not fitted for mental pursuits. "Different individuals, as we should naturally conclude, vary materially in their capability of supporting mental exertions. This may in some cases be referrible to habit, and in others to the native strength or feebleness of the constitution in general, or of the organ of thought in particular. To some persons mental application is always irksome; the task of thinking is the most unwelcome one that can be imposed on them. While in others just the reverse is observed; the intellectual operations are ever accomplished with ease and satisfaction, and to the new results of their studies and reflections do they owe the purest delights of existence. In the latter, then, the exercise of mind, being less arduous, and associated also with a pleasurable excitement, will be far better sustained than in the former."

It is by those intellectual occupations in which the more

violent and painful passions have little or no scope for activity, that health and happiness are most largely promoted. "If knowledge be pursued for its own sake, or with a benevolent end, its acquisition will generally be associated with a quiet self-complacency, diffusing a healthful serenity throughout the whole moral constitution. But when, on the other hand, the stimulus to its pursuit is selfish ambition, or personal aggrandizement, then may the most agitating and baneful passions of our nature be endangered." As examples of the most salutary kinds of intellectual employment, the author mentions those tranquil and innocent studies which are embraced under the various departments of natural history, as botany, horticulture, zoology, &c.; studies which rarely fail to bring content and serenity to the mind, to soften asperities of feeling, and to render healthier, happier, and better, those who have become devoted to them: also studies that exercise especially the reasoning faculties, whose aim is truth, and which are attended with positive and satisfactory results, affording the most calm and permanent gratification. Mental labours *judiciously varied*, he remarks, will, in general, be much better supported, than such as are more uniform and concentrated in their character. "Change would seem almost essential to our health and happiness. If subjected to like influences for long-continued periods, they cloy and weary the senses, and we pine for novelty. The same food will after a while pall upon the taste; the same scenery cease to delight the eye; the same society lose its early charms, and even the voice of love will fall dull and unmusical on the ear. Healthful and agreeable excitement in most of our organs is, to a certain extent, dependent on variations in their stimuli, and the brain forms no exception to this rule. It is sameness that begets ennui, or that painful weariness of existence so often witnessed among mankind, urging them sometimes even to self-destruction as a relief."—"Most persons will find their account, both as respects health and happiness, in occasionally quitting old scenes and duties, and interrupting their established habits and associations; since, by so doing, they will return to them with refreshed powers, and renewed susceptibilities of enjoyment."

Dr Sweetser next proceeds to consider the evils resulting from inordinate exercise of the intellect in early childhood. As yet, the development and consolidation of the body ought to be our chief aim. In confining young children to dull and sedentary mental employments, we go against the plain dictates of Nature, to be read in the instinctive propensities of the young, which urge so imperiously to physical action. The author would not, however, be understood to say that the

powers of the mind are to be absolutely neglected at this period. They are certainly to be unfolded, but then prudently, and in only just correspondence with the development of the physical organization. To look for ripeness of intellect from the soft, delicate, and immature brain of childhood, is as unreasonable as it would be to expect our trees to yield us fruit while their roots were unconfirmed, and their trunks and branches succulent. But, besides, nothing is gained by forcing: on the contrary, the brains of children so mistreated soon lose their energy, and imbecility or insanity is a frequent consequence. Direct observation concurs with analogy in assuring us, that that mind is likely to attain the highest perfection, whose powers are disclosed gradually, and in due correspondence with the advancement of the other functions of the constitution. Dr Sweetser's seventh chapter contains some excellent suggestions on the general plan to be adopted in the education of children. He reprobates long confinement to one position of body, advises frequent running and jumping about, and recommends well-aired school-rooms, the association of pleasure with instruction to the utmost possible extent, and the utter exclusion of stern sour-visaged teachers from the business of education. With respect to mental training, he would not, as we have said, overlook this; all he contends for is, that the *systematic* education of the mind be not entered upon below the age of five or six,—that no tasks demanding confinement and fixed attention are to be imposed upon it. Light instructions, adapted to the capacities, and especially such as can be associated with amusement and exercise, may be advantageously imparted even on the earliest development of the mental faculties. The moral education, as he subsequently shews, can scarce have too early a beginning. He adds the sound remark, that whenever there is displayed a precocity of intellect, or a disposition to thinking and learning in advance of the years, and to the neglect of the usual and the salutary habits of early life, it should be restrained rather than encouraged, since it is far more desirable that children grow up to be sound and healthy men, than as premature, sickly, and short-lived intellectual monsters.

Part II. of Dr Sweetser's work is devoted, as already mentioned, to the reciprocal influence of the *passions* and the bodily health. Here the close sympathy between the brain and the thoracic and abdominal viscera is abundantly evident. "The agency of the passions in the production of disease, especially in the advanced stages of civilization, when men's relations are intimate, and their interests clash, and their nervous susceptibilities are exalted, can scarce be adequately appreciated. It is, doubtless, to this more intense and multi-

plied action of the passions, in union, at times, with the abuse of the intellectual powers, that we are mainly to attribute the greater frequency of diseases of the heart and brain in the cultivated, than in the ruder states of society. Few probably even suspect the amount of bodily infirmity and disease among mankind resulting from moral causes ;—how often the frame wastes, and premature decay comes on, under the corroding influence of some baneful passion. . . . The passions, however, although so greatly abused, and the occasion of so large a proportion of the ills from which we are doomed to suffer, yet, when properly trained, and brought under due subjection to the reasoning powers, are the source of all that is great and good in man's nature, and contribute in a thousand ways, both directly and indirectly, to health and happiness. Intellect, without their quickening influence, even could it exist at all, would be but a dull and dreary waste. They are the sunbeams which light and cheer our moral atmosphere. The greatest achievements are always accomplished by those of strong passions, but with a corresponding development of the superior faculties to regulate and control them. Sluggish feelings can never be parents to high and generous resolves. It belongs to us, then, to govern, and direct to their proper ends, through the force of reason, the passions which Nature has implanted in our breasts. They cannot, nor is it desirable that they should, be extirpated."

In some persons the amiable, and in others the violent and selfish passions, are naturally predominant ; but for the most part there is a due mixture of both : " Our virtues would be proud, if our faults whipped them not ; and our crimes would despair if they were not cherished by our virtues." The effects of the passions, says the author, " are declared especially in those organs and functions which have been termed organic, or vegetative ; as in the heart and general circulation ; in the lungs, the stomach, the liver, the bowels, the kidneys, &c. Need I instance the disturbance in the circulation, respiration, digestion, which so immediately ensues under the strong operation of anger, fear, and grief ?"

On the other hand, the moral feelings are not a little under the influence of the organs here named ; the condition of the former not only affects, but is affected by, that of the latter. " Indigestion, for example, is well known to be sometimes the consequence, and sometimes the cause, of an irritable and unhappy temper. A sour disposition may either occasion, or result from, a sour stomach. Thus, in some instances, we sweeten the stomach by neutralizing the acerbity of the temper, while in others we sweeten the temper by neutralizing the acidity of the stomach. Who but must have felt his di-

gestion improve under the brightening of his moral feelings ? And who but must have experienced the brightening of his moral feelings under the improvement of his digestion ?" Hence appears the necessity of regulating the diet, and taking that frequent exercise in the open air which is so conducive to the due performance of the digestive and other functions.

" The condition of the liver is also well known both to be influenced by, and to influence, the temper of the mind. Thus, a sallow complexion, spare body, and the other signs of what is termed a bilious habit, are proverbially associated, either as cause or effect, with an unhappy disposition. I have known many individuals of unsteady tempers, in whom their amiable or unamiable fits were almost uniformly announced by the clearness or sallowness of their complexions.

" Difficulties in other functions, as those of the uterine system, will likewise often cause a waywardness of temper, rendering the disposition morose and quarrelsome, or, it may be, gloomy and dejected. And the disturbance of the moral feelings, under the action of such physical causes, is sometimes so extreme as to constitute a state even of moral insanity.

" The intellectual faculties, as we should naturally expect, do not escape the influence of such physical disorders. Thus, under morbid states of digestion, the memory becomes impaired, the thoughts wander, or are concentrated with difficulty on any particular object, and all mental exertions become irksome, and unsatisfactory in their results.

" The well-known moral infirmities of many of the distinguished literary geniuses of modern times, may doubtless have been dependent, in a proportion of the cases at least, upon those of a bodily character. ' If health and a fair day smile upon me,' says Montaigne, ' I am a good-natured man ; if a corn trouble my toe, I am sullen, out of humour, and not to be seen.' That the capricious and unhappy temper of Pope was owing, in a great measure, to the imperfection of his constitution, and consequent disorder of his bodily functions, especially of digestion, will, I think, hardly be questioned.

" Burns is well known to have suffered severely from dyspepsia even before he grew intemperate, and to this may have been mainly owing the great mental despondency under which he laboured. His dyspepsia, however, was greatly aggravated, and in consequence his melancholy, by the indolent, irregular, and intemperate habits which marked the latter portion of his life.

" Robespierre was in body meagre, sickly, and bilious ; and who can say—for the mightiest events will oftentimes spring from the most insignificant causes,—how much of the horrid cruelties of the French revolution may not have been trace-

able to the vicious physical constitution of this blood-thirsty monster?

"It is worthy of observation that diseases of the organs of the abdomen are more apt to engender the gloomy and painful passions, than such as are confined to the viscera of the chest. Thus it may be stated as a general truth, that the dyspeptic will be more uniformly despondent and irritable than the consumptive subject.

"It will now be obvious that a painful mental state having imparted an unhealthy influence to a bodily organ, a reaction must take place from this latter to the mind, adding new force to the moral suffering. And, on the other hand, when bodily disease excites the painful passions, they, in their turn, react upon, and aggravate, the morbid physical condition.

"In like manner must the happy and healthful states of mind and body be constantly contributing to each other. Thus, sound and easy digestion imparts content and good-humour to the moral feelings; which pleasurable mental condition, reacting on the digestive organs, serves to maintain the health of their function. It is a familiar saying that we should ask for favours after dinner. Thus Menenius, in alluding to the obstinacy of Coriolanus, says,—

'He was not taken well; he had not dined :
Therefore I'll watch him
Till he be dieted to my request,
And then I'll set upon him.'

"A knowledge of this action and reaction of mind and body upon each other, should instruct the physician that all his duties to his patients are not comprised under their mere physical treatment; but he is to soothe their sorrows, calm their fears, sustain their hopes, win their confidence; in short, pursue a vigilant system of moral management, which, although so much neglected, will, in many cases, do even more good than any medicinal agents which the pharmacopœia can supply."

A few pages farther on, Dr Sweetser says:—

"The extent, then, to which human happiness, and I may add, too, human virtue, must depend on the integrity of the bodily organism and its functions, can hardly be calculated. There are some whose original fabrication is so defective, whose living machinery, or individual parts of it, are so prone to work wrong, that it would seem almost physically impossible for them to be happy and amiable in their feelings and tempers. While, again, in others, so perfect is the whole organization, and consequently so healthy are all its functions, as to exempt them almost entirely from those multifarious and terrible moral sufferings which come primarily from the

body. Can we, therefore, avoid the conclusion that we may be physically predisposed, I had almost said predestined, to happiness or misery? Such, in fact, is implied in the familiar expressions of happy and unhappy constitution or temperament. As, moreover, these vicious constitutions are but too often inherited, and must, probably, in the first instance, have grown out of infringements of the organic laws, it becomes a literal truth, that the sins of the parents may be visited on their unoffending children even to remote generations.

"The vast importance of a judicious physical education, both to virtue and happiness, cannot now but receive its just appreciation; for under its influence, even a bad constitution, and the moral infirmities which are its almost necessary attendants, may be in a very considerable measure corrected. And we can likewise understand how essential is a prudent moral discipline to the good health of the body. In a perfect system of education, the moral, intellectual, and physical natures are each subjects of most important, if not equal regard.

"Finally, knowing how the disposition may be influenced by bodily conditions, ought we not to exercise a mutual forbearance, and to cultivate feelings of charity for those infirmities of temper which even the best of men will occasionally display, and which oftentimes belong more to the flesh than the spirit?"

With these admirable observations we must conclude the present article, hoping to resume the analysis of Dr Sweetser's volume on a future occasion. He discusses, in succession, the phenomena and effects of joy, anger, fear, superstition, grief, despair, shame, jealousy, avarice, ambition, and an ill-regulated imagination. The pleasurable and benevolent feelings he shews to be (except when inordinately excited) both highly conducive to, and likewise a result of, general health of the body; while the opposite is the case with the painful and depressing emotions. Suicide and the homicidal propensity are also treated of in a highly interesting manner; and in the concluding chapter the following impressive, and, we regret to think, not unnecessary appeal, is made to parents:—"No duties or obligations have been more often and eloquently enforced, both by the moralist and divine, than those of the child to the parent; and I would not say aught that might serve in any degree to weaken their deep and binding character. Still, it appears to me, that those which the parent owes the child are really of a paramount nature, and that more serious consequences will be hazarded by their omission. Our parents bestow, or impose, existence upon us, and are therefore bound in the most solemn duty, to spare no sacrifice, to

omit no efforts, which may contribute to render that existence a blessing. If, through their culpable neglect and mismanagement, they entail upon us a host of mental and bodily ills, we owe them little gratitude for the life with which they have burdened us."

II. *A Dictionary of Science, Literature, and Art.* Edited by W. T. BRANDE, F.R.S.L. & E., &c., assisted by JOSEPH CAUVIN, Esq. London: Longman and Co. 1842.

The article PHRENOLOGY in this work has the merit of giving an outline of the subject as taught by its professors, and not a distorted representation by an opponent. The writer, after mentioning the classification of the faculties under the heads of intellect, sentiments, and propensities,—to the first of which is assigned the anterior portion of the head; to the second, the middle and upper; and to the third, the posterior region and the cerebellum,—proceeds as follows:—"That this distribution, in its general outline, is borne out by facts, observation is sufficient to convince us; but whether the subdivision of these regions into minute special organs, corresponding to distinct faculties, is equally well supported, and whether the mental analysis implied in it can be considered sound and accurate, are questions which our limits forbid us to discuss. We subjoin, however, for the reader's convenience in consultation, the following outline of the different faculties, with their uses and abuses, which we have borrowed from the introduction to Mr G. Combe's *Notes on the United States of America, during a Phrenological Visit in 1838-9-40*, as probably containing the most recent, as well as the most authentic, account of the present state of this much canvassed science." After inserting it, the writer goes on to say:—"The most accredited works in favour of Phrenology are Mr Combe's writings and the *Phrenological Journal*, which is ably conducted. The most hostile inquiry into the pretensions of Phrenology to be regarded as a science, appeared, in 1826, in the *Edinburgh Review*. In that article, which was well known to have emanated from the pen of Mr (now Lord) Jeffrey, the views of the phrenologists are treated with ridicule, and their weak side subjected to one of the most vigorous attacks ever made in literary criticism."

Vigorous it certainly was—but it met a pretty vigorous reception from Mr Combe; and we observe, that, although Phrenology is now more widely diffused than ever, Lord

Jeffrey has refrained from inserting the article in his lately published *Contributions to the Edinburgh Review*.

III. *The Medical Journals.*

1. *The British and Foreign Medical Review.*

From an interesting analysis, in No. XXX. (April 1843), of Mr Newnham's work on "The Reciprocal Influence of Body and Mind," we shall extract some instructive passages. The title of the book is a very long one; but, as it will convey to the reader some notion of the kind of subjects treated of, we here transcribe it entire: "The Reciprocal Influence of Body and Mind considered; as it affects the great questions of Education, Phrenology, Materialism, Moral Advancement, and Responsibility,—Man's free agency, the theory of life, the peculiarities of mental property, mental diseases, the agency of mind upon the body, of physical temperament upon the manifestations of mind, and upon the expression of religious feelings. By W. NEWNHAM, Esq. M.R.S.L. London, 1842. 8vo, pp. 628." Mr Newnham, says the reviewer, "is known as an author in two capacities: He has written several works of a strictly religious kind, one of which has had an extensive circulation; as well as some scientific pamphlets (such as an Essay on the Disorders of Literary Men, and a Report on the Progress of Surgery), indicating his knowledge of the modern literature of his profession, his literary industry, and his own practical acquirements. In the present volume he has indulged his tastes by uniting his favourite topics, as it embraces subjects which require in their investigation the knowledge both of religious and medical science. It was the opinion of a metaphysician whose views have had an extensive influence on the thinkers of the present day, that mental philosophy could never be thoroughly investigated, except by one who was versed in physiology and pathology, as well as in the actions of the mind itself abstracted from matter; a view which a medical man who has witnessed the manifold and strange influences of the body on the mind, and has considered the workings of his own mind, will admit the truth of without hesitation. And when the difficulty of the investigation, its complexity, extent, and practical importance are considered, any attempt to throw light upon its darkness by one who possesses, in a measure, both these qualifications, must be looked at with pleasure. Mr Newnham's previous

writings shew that the study of mental phenomena has been a favourite one for many years. He is evidently a serious minded man, sincerely and earnestly convinced of the reality of religious influences, and of their paramount importance ; and a large practice for a long series of years must have regularly supplied him with objects of reflection, with facts, with matters, both to form his views, theories, or speculations, and to test their correctness. Fearlessly to acknowledge the immense influence of matter on the outward manifestations of the mind can best be done by one who is deeply convinced that mind and matter are not identical ; that mind is a great power, an agent, using matter as its medium. But still more necessary is it that a writer who, in the present time, boldly marks out the influence of physical temperament upon the expression of religious feeling, should himself be the subject of, and therefore the unaffected believer in, religious influences. In a scientific point of view this must be necessary. Unless a man has felt, himself, the influence of religion on his own mind and body, he is unable accurately and fully to understand its influence upon others. For a writer who addresses himself to general readers, especially to those of a religious cast, the necessity of this is obvious. Unless they believe in his sympathy with themselves in spiritual matters, and in his full recognition of feelings and of motives they themselves possess, they will not readily believe him when he explains to them, that deep despondency, or, still more unlikely, extravagant hope and joy, are feelings which depend not so much on the condition of their soul, as on an irritable condition of their splanchnic nerves, or an accelerated circulation through the brain. We would illustrate this by an anecdote. A clergyman's wife, a strong minded, serious person, was applied to, in the absence of her husband, by a woman for religious consolation in mental despondency of an exaggerated kind. The morbid body was as evident as the morbid mind. The lady gave her some opening pills, and told her to call again. Under similar circumstances, a medical man who had suggested the same remedy might have been considered but little better than one of the wicked."—P. 413, 414. The reviewer expresses the well-founded opinion, that religion, considered as a subject which powerfully engages the thoughts and feelings, and therefore acts upon the brain and nervous system, is a fit subject of medical scrutiny. The practitioner meets in his daily rounds with cases illustrating the mutual influences of mind and body—"influences, sometimes morbid, producing undue fear and depression which counteract all physical means ; sometimes healthful, producing a condition of mind in disease eminently

conducive to recovery, or, where the complaint is incurable, entirely reconciling the individual to his lot; and, however willing he may be to acknowledge the power of mind over matter, he cannot but be struck with the constant influence of the body upon such states of mind, and the expressions of feelings regarded perhaps by the subject of them and his friends as exclusively spiritual. This being the case, we feel we are not stepping out of our province by giving Mr Newnham's views on this branch of the medical philosophy of the mind and of its organ. A considerable portion of this volume is taken up with the subjects of life, materialism, Phrenology, man's free agency and responsibility, the differences between his mind and those of brutes, &c. They are discussed by one who is not disposed indolently to shirk any question bearing upon his principal subject, but willing to place each side of it in every light before his own mind, and to decide for himself its value. His endeavour obviously is to be fair, honest, and true; and he is always charitable."

With these branches of the subject the reviewer does not undertake to grapple, as his wide differences with the author on many points would entail long discussions; he confines himself to the main subject, the reciprocal influence of the mind and body, extracting, analyzing, and compressing what appears either new or else well stated as the result of Mr Newnham's own observation and reflection. He adds—"The contents of the whole volume (a very thick one) have evidently been written at various times when the particular subject was fresh in the writer's mind, and often at long intervals; and the author's occupation, an extensive country practice, is one of all others least calculated to encourage concentrated or continuous thought. This explains a certain prolixity and diffuseness, and a deficiency of clear order and arrangement which makes our task somewhat difficult." Speaking of moral and physical education, Mr Newnham says that education may modify, soften, direct, and improve the mind; but it cannot change the physical temperament, which always gives a tinge to the thoughts, feelings, and actions of the individuals. The kind and degree of mental power are dependent upon physical constitution. Differences in intellect and in attainments depend on the greater or less perfection of the brain, and its adaptation for peculiar pursuits. As in the case of other organs, to secure healthy function, the brain must be exercised: lengthened repose is fatal to its *tone*; and excessive exertion, or irritative action, will produce diminished power, or feebleness. The capacity of the brain for exertion is progressive: it cannot be stationary. It is a

mistake to suppose that the brain will suffer from judicious exercise. The danger is in "fitful exertion," great exercise after long inaction. Gradual employment is to be pursued, so as not to induce excessive or irritative action, which may be occasioned by long-continued exertion giving rise to exhaustion, and followed by irritability; which state may be mistaken for *power*, but which will eventually terminate in feebleness. The same morbid state may be brought about by stimuli, or by the lavish excitement of the feelings, and of emotion. The brain and the stomach are in close sympathetic connexion, and if the stomach is overtaxed the brain is weakened and oppressed, and eventually its powers are impaired, and permanent disorganization follows: hence the necessity of controlling the stomach. It has been urged as an argument against materialism that the mind becomes more mature as the body decays. Mr N. very justly combats this, and shews that man's moral nature may improve, he may use more self-control, he may have more equanimity, benevolence and love to others; but that the power of his intellect diminishes as the brain, like the rest of the body, becomes more feeble. That the brain partakes of the general decay, is shewn by literary labour becoming irksome; the power of application and the love of pursuit, diminished; the perception slow, the imagination extinct, the memory of the immediate past lost, judgment infirm and vacillating. The sight is often the first to give way, the hearing becomes less acute, the touch and smelling obtuse, and all cease to convey slight impressions or accurate notices to the intelligent principle within. The feebleness of the voice, and of the power of locomotion, equally shew the diminution of the nervous power as age creeps on. In treating of absence of mind, Mr Newnham offers this sound advice:—"Let the first symptoms of unwonted forgetfulness—of unusual listlessness—of unaccustomed indisposition to exertion—of diminished energy—of shrinking from application—of retirement from duty—of omission of details—of perversion of thought, of reasoning, or plans—let any one of these symptoms be early discovered, and zealously watched, for there is no time to lose; the brain must be saved, or death or insanity may follow." With respect to insanity, Mr Newnham remarks on the disadvantages of calling it a mental disease, as contradistinguished from bodily disorder; and very acutely shews that, making allowance for the organ affected, it differs in nothing from other diseases. He discusses those cures, such as Prince Hohenloe's, which seem to be effected by the entire faith of the patient in the miraculous powers of another: "Their experiments were never made upon a deaf

and dumb person, upon a case of blindness, produced by disorganization of the eye, from spinal deformity, from destruction of the bodies of the vertebræ, upon the loss of a limb, or upon a disorganized joint. The cure was limited upon that class of chronic diseases which depends for its characteristic intensity upon a peculiar laxity of the nervous fibre ; a fact of primary importance, since it shews the influence of mind upon the bodily functions and structure in the cure of disease." For Mr Newnham's opinions concerning the influence of temperament on the mind, we are forced to refer to the summary of them given at page 424 of the Review. In alluding to the influence of the internal condition of the abdominal viscera on the mind, Mr Newnham makes an acute remark on the *temper*, which the reviewer thinks is worth remembering. Every one is sensible how much his mind varies with the stage or condition of his digestion, and that ill temper, moodiness, and irritability often proceed from the same causes. Such manifestations of ill temper, however, are usually kept as *some* disagreeables, the same man abroad being all smiles and kindness ; hence it is evident that the will is successful in resisting their agency ; and if the mind is capable of overcoming their organic suggestions, it is bound to do so at all times. Again, as to prayer :—Some very good persons are distressed at their inability at times to pray. But this may depend on the body, as is shewn in the same individual under a change of physical circumstances. "Only let sickness assail him," says Mr N., "especially that which distresses the head : or even great bodily fatigue ; and now an oppressive languor creeps upon the mind, blunts the feelings, distracts attention, perverts perception, and destroys that gift of eloquent combination which before might have charmed us, &c." The same observation, adds the reviewer, "applies to the power of fixing the attention ; in some persons, slight causes disturb the attention, and it will be found that they are equally liable to disturbances in the animal functions, owing to great irritability of their nerves. In such, a trifling bodily ailment interferes with their brain, and serious thought becomes oppressive. After long illness, convalescence in such a patient is often attended with peevishness, and impatience from a feeling that he is inadequate to the performance of the duties he most desires, and cannot shake off his weakness, but must wait for a return of bodily strength. There is an opposite condition of the nervous system, where impressions do not easily produce morbid irritation ; protracted suffering does not disturb in a great degree the nervous system, and the mind seems more independent of the body, and not influenced to

the same extent by fatigue or exhaustion. This depends not on the constitution of the mind, but on the soundness of the brain. It is not the weak, but the strong organ of the body. Moral causes may still further strengthen this constitutional gift. Firm judgment, decision, prompt and persevering action, inflexible justice, and above all religion, will do much towards establishing this original bestowment; or, on the contrary, their absence may render it worthless. The power of abstraction from self and surrounding objects, and of fixing the mind on things unseen, is in great measure the result of these two causes—a healthy brain improved by mental discipline.

“The occasional existence of vigour of mind and increased thoughts just before death has been brought forward as evidence of the immateriality of the soul; but (as Mr Newnham says) if this is evidence, the opposite condition would prove its materiality, and this latter state is by far the most frequent. The truth is, that such manifestation depends on the health of the brain, which may not be affected by the fatal disease, but such instances are rare; the general rule is ‘that the manifestations of mind are rendered feeble or obscure, inefficient or perverted, exactly in proportion as its organ may have been subjected to the influence of disease.’ Many look to a death-bed as a test of the individual’s principles. But Mr Newnham’s observations, grounded not on theory, but upon witnessing the death of many, is that ‘many a feeble Christian expires in trembling doubt, whilst many a careless sinner is remarkable for his calm, or rather his thoughtless dismissal; many a self-righteous pharisee leaves the world with exulting recollections of his own good works.’ So often is this the case, ‘that, the nature of the malady and the kind of temperament being given, it will be easy to predicate the peculiarities of the death-bed.’ Friends should not therefore rest their hopes or fears on the ‘precarious phenomena of dissolutions, characterized by physical temperament, encompassed by infirmity, and modified by a great diversity of organic irritation,’ but rather upon the previous life.”

In a subsequent article, on Dr Greenhill’s edition of “The Five Books of Theophilus Protospatharius on the Construction of the Human Body,”* some account is given (p. 442) of the significations attached in ancient physiology to the terms *mind* and *soul*. Farther on (p. 452), is noticed Galen’s theory, that the brain is the seat of reason, the heart of the

* Of this Greek writer’s biography nothing is known: It has been inferred that he cannot have flourished before the seventh century. His work was first discovered about the year 1536.

passions, and the liver of the desires. "There is scarcely a speculative opinion in science or philosophy which ever obtained a more general and enduring acceptance than this doctrine obtained, having been adopted generally by all the Greek *scavans* after Galen, by the Arabians, and by the earlier modern authorities, as for example, Fernel (*De Anim. Facult.* c. 14.) Nay, very recently the celebrated Bichat espoused this doctrine, though without acknowledging the quarter from whence he derived it. He argues that general observation has proved that, during intense passions, it is the *heart* that is primarily affected, producing palpitations, &c., that the actor in representing such emotions applies his hand to his heart, and not to his head. (*Sur la Vie et la Mort*, p. ii. a. 5, and further p. 227.) In like manner Dr Mason Good argues that the vulgar character of the *liver*, as indicative of hatred and revenge, is not merely figurative, but has a foundation in nature; that anger long indulged is known to affect the functions of the liver, and has often laid the foundation for jaundice; and that the seat of anger has, in the poetical language of most countries, been transferred to this organ, and that choleric and irascible are convertible terms in the popular language of our day. (*Study of Med.* vol. iii. p. 114.) There occurs in Theophilus (p. 184.) another division of the brain as regards its connexion with the operations of mind to which we would wish to direct attention, as bearing a considerable resemblance to that which is adopted by the more scientific phrenologists of our times. According to it, that department of the mind called the fantasy, namely, the sensorium or receptacle of ideas, is connected with the anterior part of the brain; cogitation or the *discursus mentis* with the middle; and memory with the posterior. We shall attempt a translation of this passage in the work of Theophilus: 'The anterior ventricles of the brain comprehended under the forehead, contain the fantastical part; for there being three general functions performed by the vital spirit, namely, fantasy, memory, and the *discursus mentis*, three distinct places of the brain are allotted to them for their abode, the anterior, the posterior, and the middle. The fantasy is seated in the anterior part, the *discursus mentis* in the middle, and the memory in the posterior. But how and in what manner Homer says that the ruling part of the soul is in the heart, and also many other Greeks, nay even the divine Gospel itself, 'for why,' says it, 'do thoughts arise in your hearts?' (Luke, xxiv. 38.) I cannot tell, for often physicians inquiring concerning the loss of reason and memory, in order to find out the part affected, could discover none except the brain. Wherefore, all

suitable applications for the cure, and fomentations, and other remedies, they apply to the head and not to the heart,' &c. Now, it is worthy of remark, that no traces of this hypothesis are to be found in the works of Galen. It originated, no doubt, in the eastern schools of philosophy, and accordingly the first indication of it, as far as we know, is to be found in the works of Nemesius, who is said to have been Bishop of Emesa in the fifth century. It is adopted by all the Arabian medical authors. (See in particular Averrhoes, *Colliget.* ii. 20.) We need scarcely stop to point out the resemblance between this division of the brain, and that of the modern phrenologists, who hold that the intellect is connected with the anterior part, the moral feelings with the middle, and the animal appetites with the posterior."—P. 452-3. The only point of "resemblance" between such theories and the views of phrenologists is, that, according to both, *different parts of the brain have different functions.* In vol. ii. p. 378, we quoted many similar speculations, the mere inventions of their authors.

The fifth article of this Number is a review of a late work, by M. Lallemand, on a disease of the reproductive organs. According to that eminent physician, the first and surest means of curbing the noxious and too prevalent tendency to self-abuse, whether in children or in adults, is muscular exercise pushed to fatigue. With this opinion the reviewer agrees, though he thinks it, philosophically speaking, but an imperfect and equivocal mode of meeting the difficulty. "In addition to muscular exercise as a preventive, M. Lallemand suggests that the studies of young persons should be much more diversified, and should be rendered much more *engaging* than they at present are; that all the intellectual faculties, those that respect the fine arts, as well as those that respect science, should be actively and pleasingly occupied, in order that the attention and the thoughts of youth should be diverted from those more dangerous reflections and musings, incident to opening life, and which, in the author's opinion, the dry and harsh nature of scholastic study is so apt to favour."—P. 361.

A short notice, on page 535, of "The Connexion between Physiology and Intellectual Philosophy, by the Reverend John Barlow, M.A., F.R.S., F.L.S., &c., &c.," describes "this unpretending treatise, the substance of which was communicated to the members of the Royal Institution at one of their Friday evening meetings," as "containing the best general views of its subject that we have anywhere met with. The author has drawn his materials from the writings of

physiologists of the highest repute ; and shews himself quite *au courant* with their most recent investigations."

Of the contents of No. XXXI. of this Review (July 1843), some account was given in our 77th Number. We now merely add a short extract from article 1st, in which is analyzed a "Treatise on Softening of the Brain," by a French physician, Dr Max. Durand-Fardel. "The aberrations of intellect observed in this disease are very various. In some cases, several days before the invasion of softening, the character or the intellectual faculties present some slight modifications ; irascibility or sadness, or, on the other hand, dulness and confusion of ideas, have at that period been noted. When the disease is gradually developed, a gradual weakening of the faculties, which may advance to a perfect state of hebetude, or actual coma, occurs,—or agitation, loquacity, delirium. Coma, in other instances, is established from the first ; at least such is M. Fardel's experience, in opposition to the statement of Rostan, that it scarcely appears until the second stage."

In No. XXXII. (Oct. 1843), we find (p. 361) the following extracts from Dr Anthony Todd Thomson's "*Elements of Materia Medica*," on the influence of mental excitants in the cure of diseases :—"With regard to the influence of mental excitants there can be no doubt, although their employment as therapeutical agents has been most unaccountably neglected. No man can practise his profession advantageously, however, who does not make himself acquainted with the anatomy of mind as well as that of the body : it is only such that can form an accurate conception of the influence of mental affections on the bodily frame, and how far, not only moral happiness, but corporeal health and vigour depend on the due application of mental energies." Farther on, Dr T. adds : "Under many circumstances, joy has operated as a therapeutical agent. Alexander Trallianus has recorded a case of melancholia entirely cured by joy ; and Corineous mentions an instance of a tertian being subdued by the same means. There are many instances of its curative influence in the writings of Hildanus and Etmuller. The conditions of the habit in which joy is most likely to display its salutary exciting influence are those of decided diminished action, such as occur in melancholia, hypochondriasis, and chlorosis. It may be demanded, how the highly pleasurable emotions are to be employed as remedial agents ? Now, in reply, let me suppose, that a medical practitioner is consulted for the relief of a dyspeptic affection, attended with hypochondriasis, which he can trace to moral affliction and disturbance in the nervous system. He finds, that the feelings of his patient are quick, sensitive, and pow-

erful, and perpetually harassed by the objects which surround him. His first step should be to remove him from these ; and every means, the most powerful which can excite new impressions on the mind, should be adopted to overcome those which have caused, and are keeping up, the disease. The lively sports of the field, if the patient has any predilection for them; scenes of gaiety and animation ; news of an agreeable kind ; exhilarating conversation ; and every exciting feeling of a pleasant description, must be courted and cherished." There is also, the reviewer thinks, sound observation in the following remarks ; but he is not quite sure about the good dinner and the wine, which, although a temporary cure, might afterwards aggravate the disease. " A very frequent disease connected with mental depression is nervous cephalalgia. The pains are generally acute over one, sometimes over both eyes. The brain in such a state is in an irritable, not an inflammatory, condition ; hence stimulants are indicated, and we find that sometimes even those of a material kind, a good dinner and a glass of wine, will dissipate that which, to a careless observer, would have demanded cupping and other depleting measures. A much more immediate remedy, however, is any event which can cause pleasurable and cheerful feelings in the mind ; under such the irritability and the headach will generally and instantly disappear."

Article 7th is a review of the second edition of Flourens' " Experimental Researches on the Properties and Functions of the Nervous System in Vertebrated Animals." Speaking of the " unity of the cerebrum," M. Flourens thus sums up the results of his investigations :—" I. The unity of the cerebrum, or of the organ which is the seat of intelligence, is one of the most important results of this work. II. The organ, the seat of intelligence, is one. III. In fact, not only do all the perceptions, all the volitions, all the intellectual faculties, reside exclusively in this organ ; *but all these faculties occupy the same place in it. As soon as one of them disappears by lesion of a given part of the cerebrum, they all disappear. As soon as one of them returns by the cure of injury, all return.* The faculty of perceiving and willing, constitutes, therefore, a faculty which is essentially *one*, and this single faculty resides in a single organ." We are amazed that any physiologist of the present day should endanger his reputation by making such assertions as those we have here printed in italics.

On the following page the reviewer says :—" That the cerebral ganglia are the instruments of perception, memory, the intellectual faculties, and the will, may be regarded as a position fixed by the researches of M. Flourens. That the motor

principle is *immediately* derived from the spinal cord and medulla oblongata, seems also to be a legitimate deduction from his experiments ; and it was by him that the principle was first brought prominently forwards, that this motor principle may be excited to action, by an external impression that does not produce sensation. The determination of the functions of the cerebellum had been previously made, without the knowledge of M. Flourens, by Rolando ; and the near coincidence of the two series of results is sufficient to shew that, even if neither precisely expresses the truth, neither is far from it. Similar experiments have been subsequently made by Hertwig, with corresponding results. All these experiments lead to the conclusion, that the cerebellum is the organ by which the simple motions of the several parts of the body are blended together, for the performance of the actions of locomotion, and for the balancing of the body when at rest ; and this conclusion harmonises so well with the evidence supplied by comparative anatomy, as to the relative development of the cerebellum in groups of animals that are distinguished by differences in the number and variety of such combined actions, that we cannot but regard it as entitled to take rank as a physiological truth. Our phrenological readers need not imagine that the admission of this view necessarily militates against the doctrine of Gall, respecting the seat of the sexual impulse ; since it is quite possible that the two functions may coexist in the cerebellum ; and there are phrenologists of eminence, who have found themselves compelled by the weight of evidence to admit the truth of Flourens' views. It is not by any means a satisfactory mode of getting rid of such evidence, to say that no value can be attached to vivisections, since an animal that has undergone so severe a mutilation of its nervous centres cannot be expected to keep its balance, walk, fly, &c. For is not the removal of the cerebral hemispheres an operation of much greater severity ? And yet after this, animals may live for months, standing, walking, flying, &c., but doing all as if in a perpetual sleep. M. Flourens relates that a cock from which nearly half the cerebellum had been removed, frequently attempted to have intercourse with hens in whose company he was left, shewing that the sexual appetite was not destroyed by this severe mutilation. But he could never succeed, for want of power to execute the necessary combined movements, and to retain his equilibrium." —P. 368.

Article 8th is an analysis of Vrolik's "*Researches into the Comparative Anatomy of the Chimpanzé*" (Amsterdam, 1841). With respect to the brain, we are informed (p. 380) that, as

that of the specimen dissected by Vrolik was unfortunately decomposed, he has given, by way of compensation, "an excellent sketch of a vertical section of the brain of an orang, by which he has completed 'the phrenological iconography' of that species, which the works of Sandifort and Tiedemann had, in this respect, left imperfect. His plate exhibits a character of difference from the human brain, which had not hitherto been pointed out; namely, that the corpus callosum, whose posterior border corresponds, in man, to the testes, does not, in the orang, reach even so far back as the nates."

Leaving for future notice the last Number of the *British and Foreign Medical Review*, and also of the *Medico-Chirurgical*, we shall now advert to some of the other journals.

2. *The Medical Gazette*.—In the Number for 3d June 1843, there is an article on "The Necessity for the Study of Mental Philosophy by Medical Men;"—10th June, "Points in Medical Jurisprudence; Homicidal Monomania, and Murder by Premeditation;"—4th November, "Account of the Colony of Insane at Gheel, a village near Antwerp," by Mr Lee;—8th December, and subsequent dates, "On the Impunity of certain Attempts to Murder, and the grounds of that Impunity," by Dr T. Mayo. To these we can merely refer.

3. In *The Lancet* of 6th January 1844, p. 490, will be found an extract from Dr Cormack on tendency to insanity at child-birth: He illustrates the subject by reference to the lower animals.—On 27th January, p. 576, Mr E. J. Hytche, writing about "the impostors who are exhibited by the professors of Mesmerism," says,—“I have recently had an opportunity of testing three or four of these cases, but the experiments immediately failed when a non-mesmerist silently suggested them. . . . These experiments demonstrated that the patients were wilful, though artful, deceivers.” Having subsequently examined the heads of the mesmeric patients, he found the evidence of a low moral organization and an acute intellect, with large Imitation and Secretiveness. We presume he does not, however, mean it to be inferred that such is universally the case with the heads of mesmeric patients. Among mesmeric as among other exhibitors, both impostors and "true men" are doubtless to be found. In the No. for 2d March, is published the following extract from the *Physician's Journal of the Lincoln Lunatic Asylum*. "One declaration I feel it but candid and manly to make before I close this book for ever. An observation of many months has convinced me that the defects I formerly thought inherent, necessarily inherent, in the non-restraint system, and

inseparable from it, are not so, and, with few exceptions, may be considered referrible to other and to extraneous sources. I do not mean to fly from one extreme to another, and to say that the system is perfect. I am convinced that much is to be discovered, and much will be discovered; but in a moment like this, which to me is not without its solemnity, I should consider the suppression of any change of opinion on a subject like this a sacrifice to self, and consequently unworthy. (Signed) W. D. COOKSON." This declaration is highly creditable to Dr Cookson.

4. *The Medical Times* of 6th and 13th January 1844, contains an interesting communication on Mesmerism from Mr Braid. He maintains, that the remarkable exaltation of the power of the senses which occurs in the mesmeric trance, and the tendency of mesmerised persons to imitate the actions of others, are sufficient to account for many phenomena which have been attributed to community of sensation, and to the operation of the mesmeriser's will upon that of the patient. He ascribes the muscular motions, attitudes, and rigidity, apparently resulting from physical operations by the mesmeriser, not to any magnetic influence, but purely to imagination. "I have thus," says he, "acted on patients myself at the first interview, and before numerous spectators; making the patient rigid, and the limbs involuntarily fixed, and feeling as if drawn in any direction I chose, simply by calling the muscles into strong action, and concentrating the nervous energy in that direction, by impressing the patients with the conviction that such would be the certain results. The moment the attention was directed in another course, the rigidity would spontaneously cease." He has performed so many experiments (one of which is detailed) leading to these conclusions, as to convince him of the fact, that the phenomena are entirely the result of imagination acting on susceptible subjects. He adds:—"Almost all intelligent individuals who have witnessed these experiments, agree with me in this opinion."

We referred in last Number to an article in the *Medical Times* of 16th December, entitled "Mesmerism Unmasked;" and added, that it remained to be seen whether Mr Weekes of Sandwich, the accused, would acquiesce in the statements of the accuser, Dr Smethurst. On 10th February (p. 322), a reply is published by Mr Weekes, who characterizes the article in question as "one uniform tissue of the most gross and wilful falsehoods that has ever found its way to the world through the medium of any respectable publication, in opposition to the truths of animal magnetism." He says that not

only were there applied (in addition to masks) thick velvet pads and bandages, fitting as tightly to the face as the very skin itself, but the boy's eyes, after being, as it were, sealed by magnetic manipulations, were covered to the extent of two inches around, and half an inch in thickness, with plaster of Paris, and other opaque cements; and yet did the patient receive "impressions enabling him to read, play at dominoes, and so forth." The substance of a rejoinder by Dr Smethurst may be seen in the *Medical Times* of 2d March, page 402.

IV. Our Library Table.

1. *The Medico-Chirurgical Transactions*, vol. xxvi., contains a valuable paper, by Dr John Webster, entitled, "Statistics of Bethlem Hospital, with Remarks on Insanity." The author points out a uniformly increasing proportion of patients discharged cured, along with a diminished ratio of mortality, in cases of mental disease in that establishment, during the period which has elapsed since the middle of the last century. In the three years 1750-51-52, 461 patients were admitted; 145, or $31\frac{1}{2}$ per cent. were cured; and 118, or $25\frac{1}{2}$ per cent. died;—while, in 1840-41-42, 897 were admitted; 492, or near 55 per cent. were cured; and 51, or $5\frac{5}{8}$ per cent. died. Such are the triumphs of improved treatment!—The common opinion, that in this country insanity is more prevalent among women than among men, is shewn by Dr Webster to be well-founded; and it farther appears that mania is more curable in females than in males. During the twenty years ending 31st December 1842, the number of females admitted exceeded that of the males by 47 per cent.; yet, while only $46\frac{1}{2}$ per cent. of males were cured, the rate of cure in the case of females was $55\frac{1}{4}$. The deaths were—males, $6\frac{1}{4}$ per cent.; females, $4\frac{1}{4}$. And, as the same facilities regarding the admission of patients into the hospital prevail, without any reference to sex, provided the cases are recent, the above results must be pronounced conclusive. The statistics of St Luke's Hospital confirm them.—We learn also, that "instances of self-destruction are now much less frequently met with in public institutions for the insane than formerly; notwithstanding the fact that patients enjoy at present greater freedom, are more frequently engaged in varied occupations, and even sometimes are allowed to use dangerous tools in their respective handicrafts, than in the olden time, when restraint and coercion were more commonly employed." In the twenty years ending 1st January 1770, the number of suicides was, to

the number of admissions, as about 1 to 202; whereas in the twenty years ending 31st December 1842, it was only as 1 to 925, or less than one-fourth of the former proportion. Of the persons who committed suicide during the former period, six were males and twelve females; of the five who destroyed themselves during the latter period, all were females; the latter sex thus being indicated to be more prone to this act than males. That restraint and strict confinement do not secure the patients better than the improved modern treatment, but the reverse, appears from the fact, that, during the former of the periods above specified, forty-four males and eleven females "ran away," being one escape for every sixty-six admissions; while, during the latter period, only eleven men and five women made their escape, being one for every 292 admissions, or less than one-fourth the previous amount. These details farther shew, that females, though more prone to suicide than males, less frequently run away. Insane females are found more likely to attain old age, although their mental disease may be considered incurable, than males, under similar circumstances.—One of the most valuable features of Dr Webster's paper is a "Synopsis of the Principal Pathological Appearances met with in 72 Insane Patients, examined in Bethlem Hospital since the 1st January 1837, by William Lawrence, Esq., F.R.S., &c." From this it appears that "some pathological changes of structure, more or less evident, were found in the brain or membranes of the whole 72 dissections reported, of which it may be stated, as a summary, that 55 cases likewise exhibited diseased alterations of structure of some kind or other in the organs of the chest, whilst only 14 patients shewed any morbid appearances in the abdominal viscera. Undoubtedly, this peculiarity may perhaps have been owing to the circumstance, that the abdomen was not opened in every instance, although the presumption is otherwise in the great majority of the cases now detailed." The synopsis, it is added, does not comprise only selected dissections; since the table, in reality, forms a consecutive series of cases, drawn up in the exact order in which they were originally entered on the register of the hospital by Mr Lawrence; the only omissions being two cases in which the brain was not examined. The pathological changes of structure observed in the head were as follows:—"In 59 cases, there was infiltration of the pia mater. In 59, turgidity of the blood-vessels of the brain and membranes. In 41, effusion of water in the ventricles. In 27, water was met with at the basis of the brain. In 19, bloody points on the cut surfaces of the medullary substance. In 16, thickening and opacity of the

arachnoid coat. In 14, the colour of the medullary or cortical substance of the brain was altered from its natural hue to brown, pink, grey, violet, ochre, or white. And in 13 cases, there was an effusion of blood in the brain. Besides these diseased appearances, various other alterations of structure were met with in particular patients; such as effusion of pus on the brain; changed consistence of its texture; greater dryness than usual of the membranes; flattening, a shrunk, or a swollen state of the organ itself; with other changes different from a normal condition." As to the rationale of the morbid appearances usually met with in the brains of lunatics on dissection, Dr Webster expresses a strong inclination to concur with the Anatomists, in opposition to the Vitalists; but we subjoin in a note what he has said more fully on this subject in another work.*

* Extract from the 3d edition of Dr Webster's *Observations on the Admission of Pupils to Bethlem Hospital*, p. 56.—"Speaking generally, most medical practitioners in France who make mental diseases their practical study, are at the present moment divided into two sects, the Anatomists and the Vitalists. The former section affirm this principle, that lunacy always exhibits specific alterations of structure in the brain and nervous system, which characterize the disease; on the other hand, the Vitalists assert that the changes of structure met with in the brains of certain lunatics, so far from being characteristic, or the real cause of the symptoms met with during life, are merely effects. Among the supporters of the latter doctrine, Pinel, Esquirol, Georget, Lélut, and Leuret, occupy the first rank; whilst the anatomists possess the authoritative names of Foville, Parchappe, Belhomme, Calmeil, Moreau, and others. But this is not the place to enter into the arguments with which both divisions support their particular opinions; however, it may be interesting to state this much in regard to the management and remedies which each party think judicious, and ought to be employed; that the anatomists place much dependence upon the physical treatment of the disease, both by remedial means, and the employment of the patients in some bodily occupation, whilst the vitalists depend with great confidence upon moral treatment and mental recreation; or, to quote the dictum of one of their greatest authorities in the cause, 'rely on the power of logic and the force of reasoning in the treatment of lunatics;' or perhaps, as a less enthusiastic advocate would say, endeavour to convince the patient in the first place that he is actually insane, and then try to reason him out of his delusions. This is certainly putting an extreme case; but it may shew the absurd conclusions violent partizans of any particular theory will even arrive at, when only looking upon one side of the question. Each party think their opponents are quite wrong, and of course, that they are themselves the only promulgators of true doctrines, whilst both sections bring forward plenty of arguments and illustrations in support of their respective opinions regarding insanity. For my own part, I confess both facts and reasoning greatly preponderate in favour of the anatomists; and seeing such scientific and experienced physicians as MM. Foville and Parchappe entertaining such opinions, that of itself is, in my estimation at least, a strong argument in favour of the conclusion, that the doctrines of the anatomists rest on the most stable foundation."

In the same volume of the *Transactions*, Dr Webster reports an interesting case of paralysis, without loss of sensation, but, on the contrary, an increase, during the latter stages of the disease, of acuteness of the sense of feeling.

2. *The Phrenological Library—Gall on the Functions of the Brain*, Parts IV. and V. London: G. Berger. 8vo.—Gall's second volume is commenced in Part IV. Many improvements of style continue to be made on the American translation, though occasionally at the sacrifice of minute accuracy. Care should be taken to avoid this in future, and also to spell names correctly.

3. *Thoughts on Physical Education and the True Mode of Improving the Condition of Man*. By CHARLES CALDWELL, M.D., &c. With a Recommendatory Preface by George Combe. 2d British Edition. Edinburgh: MacLachlan & Co.; London: Simpkin & Co. Royal 8vo.—Our high opinion of this work has already been repeatedly expressed. (See ix. 481, and x. 170.) In an advertisement prefixed to the present edition by Mr Cox its editor, he says—"The reception of the previous edition of this treatise by the British public was so favourable, that already the work has been nearly six years out of print. Encouraged by this result, and believing that the principles so clearly and forcibly expounded by Dr Caldwell are calculated to increase, in no trifling degree, the health and happiness of those who shall act in accordance with them, the Editor has thought it desirable to publish a new edition, in a form which enables him to adapt its price to the resources of a less wealthy but more numerous class of readers than that for which the former edition was more especially designed by the publishers. It gives him pleasure to add, that Dr Caldwell has expressed his entire satisfaction with the manner in which the work has been enlarged and improved by the addition of passages from his other writings."

4. *The Zoist*, No. IV.—In a well-written and ingenious article published in this Number by Mr Herbert Spencer, and entitled "A New View of the Functions of Imitation and Benevolence," it is maintained that sympathy is the function of the former (as Mr Hudson Lowe, unknown to Mr S., had suggested in our 14th volume), and that *sensitiveness*, or the sense of pleasure and pain, is the function of the organ to which the latter name has hitherto been applied. Notwithstanding Mr Spencer's clever pleading for this view of the function of Benevolence, we think his theory at variance with

the result of wide experience, which fails to discover so constant a relation between the size of the organ and the sensitiveness of the individual, as he says he has found. We retain the opinion that each faculty is sensible of pleasures and pains in its own sphere; and that in proportion to the size and excitability of its organ (the excitability being materially affected by temperament, to which Mr Spencer denies all influence in the production of sensitiveness), is the acuteness of those pleasures and pains. Did space permit, we might urge also some weighty theoretical objections to Mr Spencer's doctrine; for, with his eyes wide open to facts that favour it, he is not very clear-sighted with respect to such as have an opposite tendency.—The chief other articles in this Number of the *Zoist* are on "Education as it is" (*i. e.*, what nobody is now bold enough to deny, very defective, both in quantity and quality); on the Cerebral Development and Character of the late John Constable, R. A., by Mr Hering; on the Organ of Size, by Mr Atkinson; and "Cures of Epileptic and other Fits with Mesmerism," by Dr Elliotson.

5. *The Illuminated Magazine*, No. VII., for November 1843, contains an article in an ironical strain, intended to ridicule Phrenology, and illustrated by amusing woodcuts. The satire is perhaps deserved by some who call themselves phrenologists. In the December Number, p. 79, a curious anecdote is related by a medical gentleman who writes under the name of "Luke Roden, M. D.," of a boy who, from a most affectionate brother, changed to a most tyrannical and malicious, in consequence of cerebral injury produced by a spicula of bone, growing from the inner surface of a part of the skull which had been depressed by a blow inflicted at school with the end of a ruler. After an operation on the skull by Mr Cline, which disclosed and removed the cause of the evil, the boy's attachment to his brother returned, and he, moreover, got rid of strong platonic passion which had seized him for a lady, the mother of five children, of whom the eldest was older than himself. We have reason to believe that this anecdote is perfectly authentic.

6. *The Phreno-Magnet*.—The first volume was completed in December, and is decorated with a portrait of its editor, and a view of the cottage in which he was born. He announces the intention of henceforth publishing the work, not as hitherto in monthly Numbers, but as an annual volume, to be issued about the end of each autumn. This arrangement will afford him more leisure for the digestion of his theories.

IV. INTELLIGENCE, &c.

Aberdeen.—The Phrenological Society in this city continues its labours as usual. The following are the principal papers which have been read since the date of last report :—On the Capability of Man to improve his Nature and Condition, by the Rev. Patrick Clerihew.—On Conscientiousness, as manifested in Commercial Pursuits, by Mr John Connon.—Remarks on a variety of Phreno-mesmeric Experiments, by Professor Gregory, M.D.—On Sleep, Dreaming, and Somnambulism, by Dr J. P. Walker.—On the Tendency of the Popular Movements, by the Secretary. Two dissections of the human brain were given by Dr Walker.—At the Annual General Meeting the following gentlemen were elected as office-bearers and committee :—George Combe, Esq., *Honorary President* ; Professor Gregory and Alexander Linton, Esq., *Surgeon, R.N., Presidents* ; Mr James Straton, *Secretary* ; Mr A. Cushnie, *Treasurer* ; Mr T. Kirby, *Librarian* ; Dr J. P. Walker, and Messrs William Jaffrey, Masson, Petrie, and Easdale, *Members of Committee*.

Alloa.—The Rev. D. G. Goyder has delivered a second course of lectures here on Phrenology, under the auspices of the Phrenological Society. It extended to seven lectures, commencing on the 13th, and concluding on the 29th of February, two lectures being delivered weekly, except in the last week, when three were given. They were listened to by an attentive audience, averaging 130 of the most respectable inhabitants of the town and neighbourhood, fully a fourth of the number being ladies. These lectures seem to have excited a decided interest in the town in favour of Phrenology. Mr G. intends to deliver courses of lectures in Tillicoultry and Alva, commencing in about a fortnight.—*March 6. 1844.*

Liverpool.—Extract from the third quarterly Report of the committee of the Liverpool Phrenological Society :—“ In presenting the third quarterly report, your committee feel great pleasure in directing your attention to the steady progress the society is now making, both in regard to numbers, and the means of carrying out the objects we have in view. Numerous have been the difficulties we have had to contend against, and many the disadvantages we have laboured under ; but these are gradually giving ground, and our prospects of future success are very promising. The study of Phrenology will soon become general amongst the thinking class ; for the prejudices which have so long hindered its reception are being removed, and bigotry is fast tottering to its fall. The spirit of free inquiry has gone abroad ; and the laudable desire becomes engendered in the human mind—To know itself. These are signs of good things to come ! * * It is highly pleasing to think that we have amongst us those who are capable of diffusing a knowledge of the great principles of our science, and that they are not only willing, but anxious to devote their utmost energies to further the objects of the society. The disadvantage we have hitherto experienced for want of one to conduct the phrenological studies, your committee is happy to inform you, is not likely again to exist, C. W. Connon, Esq. having kindly volunteered to give his services to the society on Thursday evenings. Your committee would strongly urge each member to avail himself of the opportunity of improving the knowledge he may have acquired, and of refreshing his memory, which this course of instruction will afford.

“ As use is the great end we ought ever to keep in view while we are

searching for knowledge, and as Phrenology is a practical science, applicable to every state into which man may enter, from infancy to second childishness—it is to be hoped that its practical utility will not be overlooked by you—that the lesson of justice, of mercy, and of forbearance, which its doctrines teach, will be allowed to influence your conduct towards others. By thus bringing these principles into practice, the Legislature will at length be taught that the principle of evil can more effectually be destroyed by increasing the means of cultivating the good, than by the infliction of pains and penalties.

“ In directing your attention to the discussion class, your committee regret that its objects have not been so fully carried out as they would have wished ; but within the last few weeks it has given evidence of a revival, which they hope will continue ; for much benefit may result from this class, especially to those who are desirous of cultivating the art of public speaking. * *

“ All must be conscious of the benefit which a society like this would derive from a well-stocked library. Your committee are sorry that we are so far behind in this department. Our funds are too low to enable us to remedy this by the purchase of books ; and they would, therefore, earnestly solicit the members, individually, to follow the example set by Mr Fidler, by lending a volume or two for circulation amongst each other. This interchange of books will greatly increase the interest of the society, and promote a spirit of true benevolence amongst the members. Thus will our society be a school not merely for the improvement of the intellect, but for the expansion of the heart.

“ February 6. 1844.

J. CALDERWOOD, Hon. Sec.”

Manchester.—The *Manchester Guardian* of 10th January contains a notice of a phrenological exhibition by Mr Bally in the Mechanics' Institution, during the Christmas holidays. The casts and skulls exhibited by him occupied the whole of the long gallery in the upper floor of the Institution. “ The collection,” it is stated, “ includes many thousand casts, masks, and busts, and it is certainly the finest and most complete out of London. At that end of the gallery nearest the entrance door, are six busts of the male Ojibbeways and the half-breed interpreter, who were recently in Manchester ; exhibited in all the finery they love so much, and with their faces painted red and green as in life. The casts which Mr Bally took of the Indians (and from which he subsequently modelled the busts) are placed on a shelf nearly opposite the fire-place, and not far from the busts ; and on the table below these casts, are those of Thomas Adams, who was one of the Indian tribe of ‘ flat-heads,’ Osceola, the celebrated Indian chief, and the real head of a New Zealand chief, preserved by some process of embalming or drying, and displaying all the tatooing on the forehead and face. Near this are some glass cases, containing a number of beautiful illustrations of the skulls of the smaller animals and birds, forming an interesting group for the comparative anatomist. Another glass case exhibits some human skulls sawn in two, so as to shew the thickness of the bony covering of the brain ; also various casts, in plaster and wax, of the skull and the brain ; one especially with the integuments laid back, so as to shew the *dura mater* and *pia mater*, the bloodvessels of the brain, &c. Another displays convolutions of the brain of an intelligent girl of 17, with the names of the phrenological organs marked on the respective convolutions. On the same side, and extending for some length down the gallery, are ranged the series of casts ; each illustrating, by some marked or extraordinary development, one of the 36 organs, now supposed to constitute the complement of the

brain. Beneath are tablets containing descriptions of the organs, their primitive power, abuse, moral influence, and excessive manifestation. Above and behind these are hundreds of casts, many of them of individuals distinguished for their great acquirements, or remarkable genius, in various departments of literature, science, and the arts. * * Next are numerous heads of murderers and other great criminals, from Burke and Hare, down to Courvoisier, Greenacre, &c. An ingenious method of exhibiting what may be termed the type of the criminal head is also shewn. In one cast are exhibited sections of the heads of thirty of the most notorious criminals, taken from the nose to the back of the head (in fact, profiles), and in another cast are similar sections, taken from side to side, or ear to ear. It is remarkable how these heads generally agree, both in their elevation of some organs and their depression of others, and how inferior are all, in point of elevation of the coronal region,—that of the moral sentiments,—to the head of a good and benevolent individual, placed near them for the purpose of comparison. Near these is a collection of national types of heads, including the ancient Egyptian, Greek, Briton, &c., and the modern Egyptians, Brazilians, aborigines of New South Wales, the Sandwich Islands, &c.; the Chinese, Caucasian, Esquimaux, Caffre, Negro, Hungarian, &c. At the lower end of the room, in the upper tier, are casts of eminent divines, physicians, lawyers, and other professional persons; below, on the table, is a series of casts illustrative of morbid anatomy, &c., cases of *hydrocephalus*, or water in the brain, frontal sinus, and some remarkable families of idiots. Along the other side of the room is a very interesting collection of duplicate casts of the same individuals, shewing that the external head alters its form (in other words, that particular organs or groups of organs may be considerably developed) at periods of life, long after those at which it has been supposed growth ceases, and the size of the head becomes fixed. There are two, for instance, of the late Sir William Herschel, taken at different periods, and the later one shewing a much improved development. Others are of individuals whose names are not given, taken at intervals of from four to eight or nine years, and all strikingly illustrative of the fact. There are three busts of Mr Charles Cumber, of this town; the first taken in 1829, the second in 1835, and the third in 1842. There is an obvious change in the forehead and other parts in the first interval of six years, and another as conspicuous change in the latter period of seven years; while the comparison of the first and last, shewing the changes made (long after maturity of physical growth in other respects) in a period of thirteen years, is really extraordinary. * * This valuable and interesting collection is made the more instructive by Mr Bally's explanations, at stated times, especially as to the Ojibbeway Indians. Altogether, it is a gallery well deserving a visit from intelligent persons of both sexes."

On 8th and 29th January, a long and elaborate paper, on "The Influence of Education on Wear and Tear in Early Life," was read at the Manchester Royal Institution, by Thomas Turner, Esq., Honorary Professor of Anatomy and Physiology at that institution. He stated that he had paid considerable attention to the subject of early education, from having witnessed in his profession the serious, terrible, and even fatal effects, arising from over-straining of the infant mind, and that his object was to do what he could to check the current of destruction. As the report of the first part alone of his paper occupies three columns of the *Manchester Guardian* (January 17), we cannot give even an outline of its contents. A long and interesting discussion ensued, in the course of which Mr Turner expressed his approval of infant-schools,

when properly conducted. He could hardly conceive that any great amount of wear and tear could go on in such schools. Their great advantage consisted in children being removed from their homes, while their mothers were engaged at the factory: for, in infant-schools, they were under the care of proper persons, who took charge of their morals, and kept them out of mischief; and it was certain that the amount of education they received there could not be injurious to the development of either mind or body. Those schools, provided the morals of the children were properly cared for, could only do great good. If education were judiciously managed, so as not to excite the brain to premature development, or so as to produce what parents might be proud of, and soon have to mourn as lost—a precocious child; if the mind were not unduly tasked; there was great advantage in its exercise, from the age of eight, nine, or ten. The effects of over-action of the brain, he remarked, are not always manifested in early life; but the foundations of future mischief are then laid.—Both *conversazioni* were very numerous attended, the assemblages including a large proportion of ladies. We hope Mr Turner will publish his paper, as a separate pamphlet, with such additions as the discussions on it, and his own reflections, may have suggested.

On 5th February there was another *conversazione* in the same Institution, the subject for consideration being a paper by Mr J. P. Lynill, on Mesmerism. The paper was of great length, and ably advocated the reality of mesmeric phenomena. In the course of a long discussion which followed, some speakers expressed belief, and others doubt. Among the advocates of Mesmerism, was the Reverend Charles Burton, LL.D., of All Saints, who stated that, having seen many exhibitions of the phenomena, he must acknowledge himself a perfect believer. He strongly urged its claims to candid examination; and, so far from thinking its tendency bad, regarded it as one of the strongest proofs of the immateriality and immortality of the human soul. There is a very full report of this *conversazione* in the *Manchester Guardian* of 14th February.

At a public meeting of the Congregational Dissenters of Manchester and Salford, held on 27th December 1843, “to receive the report of the deputation who were sent to the Conference on education, recently held in London, and to adopt measures for extending day-school education in Manchester and its vicinity,” the Rev. J. W. Massie, in moving a vote of thanks to the chairman, “took occasion to condemn, in strong terms, the philosophy inculcated in Combe’s *Constitution of Man*, and characterised the daily and hebdomadal press of this country as the vehicle for conveying the poison of Combe’s system of philosophy throughout the length and breadth of the land. It was high time that our schoolmasters should be able to grapple with this insidious system, and, until they were able to shew the dry-rot of Phrenology, they would not be prepared to grapple with it.” This paragraph in the *Guardian* of 30th December having attracted the attention of Dr Samuel Hibbert Ware, the well-known author of “The Philosophy of Apparitions,” and who, as some of our early readers may recollect, is an opponent of Phrenology, he sent the newspaper to his and our friend W. C. Trevelyan, Esq., with the following letter, the candid and altogether excellent tone of which was so gratifying to Mr T., that he begged, and readily obtained, the writer’s consent to its publication in our pages:—

“MY DEAR SIR,—I intended to have called upon you yesterday with a curiosity in the form of ‘a public meeting of Congregational Dissenters on education,’ in which you will perceive the reception your favourite pursuit has met with from the Rev. J. W. Massie.

"What can Phrenology have done to earn such unmerited abuse? Is it possible that Phrenology can have interfered with some religious dogma of these Dissenters?" The language is very like the ebullition of an odium theologicum.

"But, in my humble view of the matter, the attack is a very gross perversion of facts. I have been myself in Edinburgh one of the very oldest opponents of Phrenology; yet the morality of the investigation has ever appeared to me unquestionable. If I differ with you in supposing that Phrenology is the most eligible mode of studying the secret springs of human actions, I will at once concede to you, that your system naturally leads to an inquiry which is the noblest in which any rational mind can be engaged,—being neither more nor less than to ascertain, by self-examination, what may be the constitutional impulses of our nature, or, in other words, *instincts*, by which every human being is more or less impelled, by a sort of fatality, to a certain line of conduct, and, these natural instincts being ascertained, what is the most efficient mode, by a systematic exercise of the free will, of controlling them when in excess, or of stimulating them when too languid.

"If I am correct in defining this your object, it further appears to me, that no modern school of mental physiology has achieved a tithe of what yours has already done. Phrenology peculiarly adapts itself to the multitude, or (to use the cant word of the present day) to "the million." Being a science which requires very little aid from previous study or education, it has for many years *popularized*, in a manner, the study of human instincts, and has thus, in spite of the calumniators who falsify its true aim, already made a most important impression for the better upon the previously unreflecting portions of British society.

"Entertaining this view, I am as indignant as any of your school can be, to see your system stigmatized at a religious meeting called together for the purposes of public education, as "a poison to the land." If I myself dissent from many of your leading doctrines, without denying, however, the value of many of the psychological facts which you have adduced, believe me that I can subscribe, in its fullest extent, to the high tone of morality with which your tenets are inculcated, and to the eminent good which they have hitherto effected. Very sincerely yours,
"S. HIBBERT WARE."

Sheffield.—Last year (see vol. xvi. p. 90) we announced the formation of a Phrenological Society in Sheffield; and lately we have had the pleasure of receiving a copy of its First General Report. "Phrenology," say the committee, "was first introduced to the public of Sheffield by the late Dr John Overend; and in the year 1829, a course of lectures was delivered by Dr Spurzheim, the distinguished coadjutor of the illustrious Gall. The interest taken in it at the time seems to have been neither great nor lasting; for, down to the period when the town was visited by an itinerant quack, the subject remained in nearly a quiescent state. It was in the defence of truth, and to counteract the bad effects produced by this individual's visit, that a few persons, unconnected except by a common regard for the science of Phrenology, entered into arrangements for inviting the Rev. D. G. Goyder, A.M., of Glasgow, to deliver a course of lectures, preparatory to the formation of a society, if circumstances should warrant it. The lectures succeeded beyond their most sanguine expectations. So altered, indeed, was the state of public feeling, that the very people who, a few years ago, received the great master himself with coldness and neglect, rushed in crowds to hear the same truths from the lips of an humble disciple.

The result wished for followed. A common centre, where the lovers of the science could meet, state facts, weigh evidence, and canvass opinions, became a matter of inquiry. In this way the Society had its origin. Its leading objects are, to investigate and spread abroad the *facts* and the *system* of *Phrenology*. To effect this, various meetings have been regularly held, and public and private lectures delivered. At the weekly meetings, papers were read on the different organs of the mind, calling forth a profitable and often an important discussion. The lectures being either on subjects of passing interest, or of fundamental importance, were open to the members and their friends, or to the public at large, when the occasion required. These means, with the circulation of charts, books, journals, &c., amongst the members, and conversational discussions on knotty and disputed points, have, in the opinion of your committee, greatly contributed to clearness of conception, and tended not a little to awaken an abiding interest in the principles of the New Philosophy. The constitution of this Society avoids one of the chief causes of failure in Phrenological Societies generally, viz., exclusiveness. * * * Non-professional men at present compose the greater part of the members; but an increased support from the medical, legal, and clerical professions, is amongst the desiderata; and your committee would hail their membership as a token for good." The committee regard the formation of the Society as a successful experiment, and hope for an increase of usefulness. They conclude by expressing their conviction, that "nothing will benefit the members so much, as a rigid adherence to that course which originally laid the foundations of the science—careful observation. From observation did the science spring; by observation hath it been carried on: and by observation alone can it ever approximate perfection. To a want of continuous observation, Mr George Combe, in a lecture to the people of America, ascribes the downfall of so many societies. Your committee, therefore, in conclusion, say to every member—OBSERVE MUCH: RECORD OFTEN: GENERALISE LITTLE." The proceedings during the session have already been recorded in our last Number, p. 106. Eighty-one names are contained in the list of members annexed to the Report.

Lectures on Phrenology.—On 8th February, Mr W. R. Lowe of Wolverhampton delivered a lecture on Phrenology, in the Literary Institution, *Newcastle-under-Lyne*. On the 15th of the same month, Mr C. Donovan of London lectured to the members of the Religious and Useful Knowledge Society at *Coventry*. In a letter addressed to us by Mr W. H. Way, and dated *Athenæum, Portsea*, December 18, 1843, it is stated that Mr Donovan "has lately delivered a course of lectures at this institution, and at the Phrenological Society, with great success. A class has formed at the Athenæum, under the direction of Mr Donovan, for instruction in phrenological manipulation, which is now going on prosperously, and likely to continue so." In February and March, Mr E. T. Hicks lectured at *Malvern*, *Kidderminster*, and *Walsall*.

At a lecture on the human brain, delivered by Mr Solly at the Royal Institution of Great Britain, in *London*, on the evening of 16th February, and noticed in the *Standard* of the 19th, he avowed himself to be a phrenologist. In his "Anatomy of the Human Brain," Mr Solly stated that he had not sufficiently examined the evidence of Gall's system. His avowal is not new to the scientific world; for it was virtually made when he joined the Phrenological Association and served on the Committee in 1842, at which Session he lectured on the structure of the brain, and made the actual avowal of Phrenology being the true cerebral physiology. Mr

Solly was one who seceded, at the time many others did, from the Association. The important point connected with Mr Solly's recent avowal is, that he has openly introduced Phrenology to the Royal Institution. Its managers have carefully excluded Phrenology until this lecture, when it was well known that Mr Solly would exhibit casts of the head, from Mr Deville's splendid collection, illustrative of the changes of the head's form and size. There was a crowded audience, who received the lecture well.

In Germany, several courses of lectures on Phrenology have lately been delivered. In November and December, Mr Gustav Von Struve delivered a course in *Mannheim*, which was attended by the Duke and Duchess of Saxe-Weimar, Princess Hohenlohe-Bartenstein, several medical men, advocates, and others; altogether between 30 and 45 persons. He hopes to have made a lasting impression upon some of his audience, and to have roused, at any rate, the attention of the public to the subject. Professor Reichlin-Meldegg of *Heidelberg*, who is mentioned in our 16th volume, p. 265, tried to get during the winter an audience to an anti-phrenological course of lectures, but without success; he therefore delivered his antiquated views upon Phrenology in his course of lectures on Psychology. Dr Carus lately delivered a course of lectures in *Dresden*, and another in *Leipsic*, in which he tried to introduce his views upon craniology into the minds of his auditors. However mistaken those views may be, they direct the attention of the public towards the brain and its organs; and so far we must consider Carus as an ally of the phrenologists. Mr Von Struve has been strongly urged to go to *Dresden*, and deliver a course of lectures on Phrenology; and he contemplates going thither for the purpose very soon. Dr Hirschfeld intends to give phrenological courses in *Berlin* about the same time. In *Stuttgart*, Dr Castle delivered a course of phrenological lectures in October last, before the Royal Family. Unfortunately he does not know German, but lectures in French; so that the public at large cannot enjoy the benefit of his instructions. Lately he has published a phrenological analysis of the character of the German poet Justinus Kerner, and he is about to publish one of the character of the famous theologian Strauss, whose *Life of Jesus*, and other works, have stirred up all the Christian theological world. Dr Castle possesses a remarkable talent for bringing out the results of the different combinations of organs.

Mr Simpson's Lectures to the Working-Classes.—On Tuesday evening, 12th December 1843, Mr James Simpson delivered the first of a series of weekly lectures in the Cowgate Chapel, Edinburgh, "on the means of improving the Working-Classes." The delivery of this course (which now is nearly concluded) was undertaken by him in consequence of a requisition from 3000 working men. The lectures have embraced expositions of the different mental faculties and their uses and abuses, the principles of education, and, in general, the means of increasing happiness and preserving health. We need not farther describe them, their character having already been extensively made known by an article in *Chambers's Journal* of 16th March, entitled "An Evening with the Working-Classes." Copious reports of the lectures have been published. The proceeds of the course are to be applied in aid of a fund for establishing baths for the operative class, Mr Simpson having declined to accept any remuneration. At a recent meeting of his auditors, however, it has been resolved "to present him with some testimonial that may remain permanently in his family; and, seeing that Mr S.'s labours, chiefly as they have been addressed to their own class, have been much more widely beneficial, they farther resolved to invite their fellow-citizens of all classes to join them in this merited tribute." Their announcement

farther states, that Messrs W. and R. Chambers have agreed to act as treasurers; and that "a numerous list of contributors, however small the sums subscribed may be, will give much value to the intended complement. And it is expected that those at a distance who approve of and have been benefited by Mr Simpson's exertions, will come forward and make this acknowledgment of their grateful sense of his services." To Mr Simpson the working-class of Edinburgh is indebted not only for his lectures, but for material aid in promoting the scheme above referred to, of establishing baths. At a public meeting of the citizens, held on 30th December last (at which the Lord Provost presided, and Lord Dunfermline moved the first resolution), it was resolved to open a subscription for the purpose of erecting them; and we are glad to learn that a considerable though still inadequate sum has been raised. An excellent site has been found, behind the south side of Waterloo Place—a locality where ground is cheap, architectural ornament unnecessary, the neighbourhood abounding in workshops, and the level so low that an unlimited supply of water may be obtained from the Union Canal. In Glasgow, Aberdeen, and several other towns, agitation is going on with a similar view, and we have no doubt of its successful issue. In manufacturing places, hot water can be procured near steam-engines at literally no expense. "The bath," as Mr Simpson well remarked in one of his lectures, "is entitled to be viewed in a much higher light than as a luxury. It is the cause, and effect too, of habits of personal cleanliness, which are only found allied with the self-respect of improved temperance, and morality. It implies the purity not merely of the person, but of the clothing; for it would be an absurdity to use the bath and resume foul garments. It implies the purity of the dwelling; for clean person and clothing cannot exist in a dirty, ill-ventilated house. It implies the cleanliness, and consequent general comfort, of wife and children; for the cleanly cannot live under the same roof with the filthy. It implies the tidiness and comfort of the home, the best guarantee against the alehouse. It implies the purity of the locality; for the cleanly in person, family, and dwelling, cannot endure a dirty doorway, or court, or lane, or street. It implies, in short, a general good sense and respectability, which demonstrate an advance in the whole tone of the character."

Mesmero-Phrenology.—At a meeting of the Literary and Philosophical Society of Liverpool, on 19th February, a paper "On some recent instances of Clairvoyance" was read by Mr Thomas Spencer, a gentleman well known as one of the inventors of electrotyping. The paper is printed at full length in the *Liverpool Journal* of 2d March, and gives some marvellous details of experiments on Isabella H.—(now Mrs Todd), who was mentioned in our last number, p. 72. We have room to extract only what Mr Spencer states with reference to Mesmero-Phrenology. "I have seen," says he, "in common with many present, public and private exhibitions of the phrenological manifestations being brought out by touching that part of the head said to be the particular locality of the organ, while the person operated on was in the mesmeric sleep. It has been, however, a disputed point with experimentalists, whether the results manifested arose from the will of the operator, or the touch only. Seeing by the last experiment, that my will had certain power, I determined to try the possibility of exerting it over the phrenological organs. I had not quite made up my mind which organ I should try to act on first. I sat down, however, within a few feet of the patient, and, after a minute or two, I thought, or rather formed, a

strong desire to witness an exertion of Benevolence, in the phrenological sense of the word. At the same time, I don't think I felt conscious of how or in what manner I wished it to be displayed. While thus determining, she seemed to be uneasy; but a second or two after I had determined, she exclaimed, evidently in pain, that she had nothing to give me. I now formed a strong desire that she should give me something, and thought of money. After a little hesitation, she began to feel as if putting her hands towards a pocket; but as the room was almost dark, I could scarcely distinguish her actions. She said, however, very despondingly, that she had no money to give me, 'not even a penny.' I then formed a desire that she should give me a comb from her hair; when her hands were put up in that direction, and her comb was shortly afterwards thrust towards me. I now thought of acting on another organ, and made a mental selection of Philoprogenitiveness, or the love of offspring, for the next experiment. I sat looking steadily towards her for a short time, when she began to hum a tune, and moved her chair, as if rocking it while in the act of nursing. Very soon, however, she commenced a nurse's lullaby, as if actively engaged in putting an infant to sleep. I selected Veneration for the next illustration, when she gave a most beautiful and striking illustration of it, by throwing herself into a very picturesque devotional attitude, in which she was found when light was admitted, at the termination of this series of experiments. I repeated experiments akin to the last, on subsequent evenings, and with nearly similar success. I am by no means clear, however, as respects the classification of them, as, if there is any reality in transcript of thought, it would explain at once why she manifested actions in such strict accordance with my thoughts; for, although I might—and in fact did—call up in my mind the peculiar locality in the cranium assigned by phrenologists to the particular organ I fixed on, yet it was impossible to separate it from the peculiar functions with which each organ is associated in the mind. These experiments, therefore, go more directly to prove transcript of thought than Phrenology; and the only method by which they might be made to strictly illustrate this doctrine, would be by getting some person who was entirely unacquainted with the phrenological localities to wish for a manifestation of particular parts of the head which he would direct his attention to, *seriatim*, and in thought only. I had no opportunity of putting it to such a test."

In the *Wolverhampton Chronicle* of 6th March, there is a long and interesting report of a "Trial of Mesmerism" by Dr Owens, who has recently been lecturing there. Some members of the medical profession having challenged him to submit the phenomena to the rigid examination of a committee of their own body, practising in the district, Dr Owens accepted the challenge, and, a numerous and respectable committee having been appointed, a series of experiments was conducted by him in the Assembly Rooms, on 1st March. The most remarkable feature of the exhibition was the application of the test of mesmerically exciting the cerebral organs of the patient through the operator, and also through the medium of a third person,—the patient being blind-folded. "Mr Edwardes," says the report, "placed himself in a chair near to the patient, resting his hand upon the patient's shoulder, and touching, we believe, the vertebra in the back of his neck. Dr Owens then touched Philoprogenitiveness on the head of Mr Edwardes; the result was anxiously awaited, and in less than a couple of minutes the manifestation was educed from the patient, and followed by loud applause. Mr Edwardes, on rising from his chair, said, 'I am a confirmed believer; I can't be otherwise; I know there is no deceit with me.' At the conclu-

sion of this test, Dr Owens turned to Dr Mannix, the chairman, and said, 'I have now proved Phreno-Mesmerism.' Dr M. seemed somewhat taken by surprise, and immediately declared it should be done through a person of his own selection, when Dr Owens emphatically said, 'Then let him come forward;' when Mr Thomson, surgeon, who is stout, and thirty or forty years older than the patient, sat in the chair quitted by Mr Edwardes, and the experiment was again gone through. It was two or three minutes longer than in the former case before any manifestation appeared; but in the end this operation, like the preceding one, was perfectly successful. The organ developed was Veneration, and in bending his knees the patient fell to the ground, as if struck down. It was then confessed by the chairman that Dr Owens had gone through all that the committee could require from him, and he expressed his satisfaction at the result of the last experiment, which had been tested through the medium of a third person. The patient was then demesmerised, and in reply to inquiries said he did not know anything at all of what had been going forward; he only knew that he had been asleep. After some conversation, Dr Mannix proposed a resolution conveying the approval of the committee." In the same newspaper, however, there is a letter from Dr Mannix, expressive of his regret that a plan which he had suggested to Dr Owens had not been acted on; namely, that Dr O., when applying his hand to the head of the interposed person, should not be permitted to know what organ he was touching, and that the general spectators also should be kept in ignorance of it. Dr Mannix states that he therefore considers the experiment to have been imperfect; but expresses his respect for Dr Owens, and concludes by saying, that he feels the strongest desire to have the matter farther investigated, in the most ample and satisfactory manner. In a letter since published, he confesses, that many experiments subsequently witnessed by him "have tended gradually to dispel all doubts," and that "the result has been most favourable to Phreno-Mesmerism." He speaks of a "most highly instructive and valuable case, in which amputation of a finger was successfully performed without creating the slightest sensation of pain, or, indeed, of feeling." From the published report of this case we observe that many medical and other gentlemen were present, and that Dr Owens was warmly congratulated on the result. A newspaper discussion, ably and fairly conducted, of Mesmerism and its claim to be regarded as confirmatory of Phrenology, has ensued; and, on the whole, Mesmerism seems to have gained a high place in the estimation of the medical and other professional classes in Wolverhampton.

The Phrenological Association—Letter from Mr Sampson.—Clapham, New Park, Surrey, 5th March 1844. To the Editor of the Phrenological Journal. Dear Sir,—The last Number of your Journal contains an account, condensed from the *Zoist*, of the proceedings at the sixth annual meeting of the Phrenological Association; and as that portion of it which relates to the secession of certain members is calculated to mislead your readers, I deem it necessary to offer a few words in explanation. So long as the statement was confined to the pages of the *Zoist*, I permitted it to remain without notice, because the gross personalities of that journal formed a sufficient antidote to any unfavourable allegations which might be supposed to emanate from its conductors.

Your readers will recollect, that, after the delivery of the opening address at the session in 1842, which caused the immediate resignation of some of the oldest and most valued friends of the Association, several members, headed by Mr Simpson, signed a Declaration, disavowing a

participation in its leading dogma, but at the same time deprecating the secession which had taken place. This Declaration, mild and courteous in its allusions, was evidently calculated to prevent the rupture from extending. It gave to those whose reason might have been offended, an opportunity of remaining in the Association without committing themselves to the singular assertions which had been put forth, and which, under other circumstances, as they proceeded from a selected organ of the Association, these parties might have been understood to recognise; and it concluded with the following request:—"We request that this Declaration, with our signatures, shall be recorded in the books of the Association, and published in the *Phrenological Journal*." There seems to be nothing in this application to exclude it from courteous consideration. It appears, however, that the reception bestowed upon it by the Committee of the Association, was such as to cause the prompt resignation of upwards of thirty members. The nature of that reception it is now my object to detail.

At one of the first meetings of the Committee after the completion of the Declaration, the secretary, Mr Symes, mentioned that he had received a copy of it, and that he had observed the request which it contained; but that the document had not been transmitted to him as "Secretary," and he therefore presumed that he need take no notice of it. Upon this I urged that the circumstance of his not having received a copy formally directed, was evidently the result of an accidental omission, that the wish of the signers was sufficiently obvious, and that it would seem uncourteous to take no notice of their request, merely because such an omission had occurred. I hoped, therefore, that the committee would waive this objection; and that, if they had any dislike to the Declaration itself, they would reject it openly on that account, and not get rid of it by availing themselves of a trifling informality. In this plea I was unsuccessful; the neglect was held to be fatal; and I then said, that, *in order to render the application formal, I would make a distinct motion, as one of the signers of the Declaration, that the request for its insertion on the books of the Association should be complied with.* This motion was met by a dead silence; and in due course the committee proceeded with other business.

The copy of the Declaration which I held in my hand at this time, embraced only the signatures of about a dozen members. The Declaration itself had, however, been signed by seventy-one, and, as I wished the committee to understand that the request which they had dismissed was preferred by so large a number of their fellow-members, I deemed it right, at their next meeting, to renew my motion, calling their attention particularly to this fact. The silence with which it was received on this, was no less solemn and significant than on the former occasion.

I then wrote to two or three of the parties to the Declaration, mentioning what had passed, and remarking, that, as the course adopted by the committee had been preceded by no hasty or angry discussion, which might be likely to account for it, I could not but regard it as giving evidence of a settled spirit of intolerance, against which it would be useless to contend. The request appeared so reasonable and so free from offence, and it proceeded, moreover, from so large a body of tried friends to Phrenology, that I was altogether unprepared to meet with anything but a ready assent on the part of the committee; the attempt, therefore, to get rid of it, in the first instance, by what appeared to me to be the very small expedient of questioning its formality; and its eventual dismissal in a less mistakeable manner, convinced me, that between

the feelings which we entertained, and those which animated the committee, there could be little in common, and that, consequently, the proper course was to resign. In this view the members with whom I had consulted immediately concurred, and the secession alluded to by the *Zoist* took place.

Now, it will be seen that the motive of the seceders sprang from the opinion they entertained of the injustice and discourtesy which had been shewn in the treatment of their request. If no discourtesy was intended, of course they will have to regret that they were deceived by the semblance of it; but few persons will question that the proceedings which I have detailed might be fairly interpreted as shewing an absence of that friendly and conceding spirit which should animate all parties, and especially phrenologists, working towards one common end.

It need hardly be remarked, that the above statement places the matter in a very different light from that which it assumes in the report of the committee. It is there prominently set forth, as if it had some bearing on the case, that, in moving the reception of the Declaration, I stated that I had "no authority from any one to make such a motion." I was certainly asked if I had any such authority, and as certainly made the above reply; but it would have been well if the committee had quoted an additional remark, the propriety of which was not disputed, namely, that "no authority was necessary." The wish of the declarants had been clearly expressed, and it would indeed have been odd to object to a motion that it should be complied with, merely because they had furnished no authority to that effect. Even, however, if this singular difficulty had had any foundation, it would have been wholly upset by the fact that I was myself one of the signers of the Declaration, and could at least produce my own "authority" for moving a compliance with my own request.

But, then, it is stated in the report of the committee, that, "with every desire to give effect to the wishes of any of the members of the Association, they were not empowered to enter anything whatever in the books of the Association, excepting the minutes of their own proceedings." From this it would appear, that the committee were anxious to yield to the request of the declarants, but were prevented by the circumstance that they were "not empowered" to do so. That they were not specially empowered by any clause in the regulations of the Association I am well aware; but I have yet to learn the nature of the clause which *prohibited* them from acting upon their "desire." A "minute of their proceedings," embracing the reception of the Declaration, would surely have removed the difficulty?

It is further stated, that the parties withdrew from the Association, "solely because the committee had not consented to exceed their powers,"—an assertion which is wholly erroneous. The parties withdrew, because they believed that, with full power to accede to their request, the committee preferred to treat it with contempt. At the time when the motion was made, not one word was uttered of a "desire" to comply with it, nor of any ground of impediment to its fulfilment; and these matters are not heard of until the affair has to be explained before a general meeting. The only question raised was upon the informality of a copy not having been officially addressed to the "Secretary," and to overcome this was the recognised object of my motion. If the slightest "wish" to meet the request of the declarants had been expressed, I should have felt perfectly satisfied; but nothing of the sort took place, and I was able to arrive at no other impression than that there existed

determination to exclude compliance with it by any means. This impression may have been an erroneous one (although it seems to have been strongly confirmed by subsequent circumstances); but to those by whom it was conscientiously entertained, it certainly presented a legitimate reason for withdrawing from the Association.

In conclusion, I must be allowed, for the sake of Phrenology, to offer a word of counsel to the conductors of the *Zoist*. It is one of the rules derived even from an elementary knowledge of our science, that the manifestation of any given faculty always tends to arouse a corresponding manifestation on the part of the persons to whom it is directed; and hence, that if it is desired to correct those whom we believe to have acted under improper motives, we must address them in the language of the higher sentiments. This principle was originally set forth by those who had not advanced so far as to be able to settle authoritatively the long-vexed question of materialism; but it has never been disproved, and its recognition has wrought more for the advancement of mankind, than any other application hitherto made of the new philosophy. Now, if the editors of the *Zoist* really believe the seceders from the Association to have acted under unworthy impulses, it is their business to attack them with sound reasons and friendly remonstrances, and not, as they have done, with coarse and insulting epithets; and as I perceive that the Association are about to address a memorial to the Legislature on the evils of the present system of the treatment of offenders, I do hope that, before the editors affix their names, they will consider this principle, and resolve practically to adopt it. Should this not take place, it can hardly be expected that, upon any representation coupled with such signatures, our law-makers will be likely to pluck forth the mote which disfigures their eyes, and which cerebral physiologists are able so clearly to discern.—I am, dear Sir, yours sincerely, M. B. SAMPSON.

Aberration in the Appreciation of Colours.—Dr Boys de Loury publishes the following case in the *Revue Medicale*:—Mr H—— was obliged to give up his business as a dyer on account of his being incapable of distinguishing the different colours. The orange was yellow, a bit of brown and orange-coloured silk was of a uniform darker yellow, apricot was yellow, lilac was blue, violet was grey; garance, crimson, vermillion, were all violet; rose was a dirty-white, brown was black. The author, after passing in review the different causes, thinks that it ought to be attributed to an atrophy of the retina.—*Medical Times*, Jan. 6, 1844.

Paris Phrenological Society.—The following gentlemen are named for 1844:—Professor Bouillaud, deputy, honorary president; Count de Las Cases, annual president; Drs Dannechy and Belhomme, vice-presidents; Dr Place, *secrétaire-general*; Dr L. Couteux, treasurer; Drs Fairve, Rivail, *secrétaires-redacteurs*; Dr Le Tellier, archivist.—*Id.*, Jan. 13.

Bethlem Hospital.—At length the governors of Bethlem Hospital are bestirring themselves to make that noble institution of some little service to science. Arrangements are being made for lectures; pupils are to be admitted; an anatomical museum is to be constructed, and the study of lunacy can now be carried on by the profession in other places beside the pages of our lamented contemporary the *Lancet*. The importance of this innovation will be understood when it is remembered that medical men are responsible at law for the opinions they are so frequently called upon to certify on this or that person's sanity; and that, in point of fact, they have hitherto been almost cut off from all means of forming a scientific judgment on the matter. It is needless to say, that the merit of

the great change lies at the door of Dr Webster ; but we have already made the public aware of his laudable labours.—*Medical Times*, Jan. 20.

Festivals in Lunatic Asylums.—We have seen an interesting account of a new-year's festival, kept on the 4th, by the female inmates of Hanwell Lunatic Asylum. The wards were tastefully decorated, the dance, dominoes, kaleidoscope, music, singing, and amusements of a literary character, occupied the evening. The matron, with Dr Conolly and other medical officers, were present, and could not but have been gratified with the affectionate regard shewn to authority, and perfect attention paid to good order and harmony, by a multitude of human beings, whom society has been accustomed to treat as so little under the empire of humanity's better feelings. Such instances as this give us bright hopes for the present age's achievements in the great field of practical benevolence.—*Ibid.*

At a festive entertainment in the Glasgow Lunatic Asylum, on 1st February, the play of "Guy Mannering" was performed in a highly creditable manner, partly by patients, and partly by young gentlemen belonging to the medical staff. Afterwards a banquet took place in a hall beautifully ornamented for the occasion ; in the course of which various appropriate toasts were given, the company, who consisted chiefly of patients, being addressed by the Lord Provost, Mr Sheriff Bell, Dr Hutcheson, and others. "Nothing," says the *Glasgow Citizen*, "could be more gratifying than the harmony and good order observable in the establishment, and the friendly, and even affectionate, regard in which Dr Hutcheson seemed to be held by the inmates." Such entertainments are now frequent in lunatic asylums, and are found highly beneficial. The getting up of dramatic performances occupies the thoughts so much in the preparation, as well as acting, that morbid feelings are weakened in the mind. As remarked in the *Dumfries Herald*, on the occasion of recording the performance of "Cramond Brig" in the Crichton Institution last January, "the thing has passed into the annals of medical philosophy as a very remarkable experiment, fairly tested, and attended with such satisfactory results, as to warrant its becoming a standing curative means in every lunatic asylum."

Death of Mr Thomas Higham.—Died on Wednesday, 3d January 1844, Mr Thomas Higham, line-engraver, in the 49th year of his age. He fell a victim to typhus fever, which he took while benevolently visiting the sick. He was an intelligent phrenologist. He joined the class which Mr Levison established about 15 years ago, at the London Mechanics' Institution, for the investigation of the truth of Phrenology. Satisfied of the truth of the science, he felt its importance to society, and on all proper occasions he judiciously avowed his convictions. He was absorbed in his profession, was of retired habits, but of untiring zeal in visiting, and personally aiding, the sick. Although well qualified to state and illustrate the principles of Phrenology, yet he chose the unobtrusive part of allaying prejudice against it by well-timed remarks.—Rd. C.

Lunatics in Ireland.—On 4th March, Sir R. Ferguson referred in Parliament to the state of the lunatic poor in Ireland, and the treatment of lunatic criminals ; and was assured by Lord Eliot, that a measure for the management of the criminal insane and the incurably insane poor had been prepared, referred to a committee, and the report of the latter was now under the consideration of all the managers of insane asylums

in Ireland. When their opinions had been received, something would be done to remedy the existing evils.

Influence of Muscular Labour on the form of the Head.—When a pursuit exercises rather the muscular than the mental powers, the demands made upon the former are never favourable to the development of the latter. Indeed we have observed a marked difference in the *form* of the head in individuals whose occupations call into play, in different degrees, the mental faculties. We are not disposed to ascribe this to an original difference of conformation, but to the different degrees in which the mental powers are exercised. Nature will not allow, to any great extent, an expenditure of energy in two different directions. The vigorous muscular exercise of the body must always be at the expense of the intellectual faculties. The supply which is necessary to support the body in constant and severe labour, leaves only a limited stream of blood and nervous energy to stimulate and feed the anterior region of the brain. Hence in the forgers, and in all persons similarly circumstanced in the trades in this town, we perceive a large development of the head posteriorly and laterally. The forehead is usually low and retreating, and the space between the crown of the head and the ears exhibits a very limited expansion. On the contrary, in artisans whose business exercises the thinking faculties in a greater degree than the muscles, the head gains in height and development both in the anterior and lateral portions of it.—*The Vital Statistics of Sheffield*, by G. Calvert Holland, M.D.

Demoralising Effects of Indigence.—The inability to work, and yet the necessity to labour, creates a degree of wretchedness and suffering easier to imagine than describe. But the wretchedness is not confined to the individual. A wife and increasing family are involved in the accumulated evils. Poverty, yoked with disease, embitters and shortens life in a thousand forms, but all forms of misery. Can the finer feelings of the heart grow and expand in such a soil? Where the struggle is to support existence, and succeeds only by sacrifices and expedients from day to day, let us calculate rather on immoralities stepping into crimes of darker hue, than virtues invigorated by the ordeal of penury and pain. Virtues are like plants, they flourish best in a rich and well-cultivated soil;—the popular virtues of mankind, which are rather exemptions from vice than active and spiritualized emotions, exhibiting in the every-day occupations of life the charities which faint not, nor seek display.—*Ibid.*

Unfolding of Character.—It is only on occasions that deeply affect our feelings and our happiness, that the character of our minds is fully unfolded.—*Roscoe.*

Cure of Religious Melancholy.—I have authority from the records of physic, as well as from my own observations, to declare that religious melancholy and madness, in all their variety of species, yield with more facility to medicine, than simply to polemical discourses, or to casuistical advice.—*Dr Benjamin Rush.*

Errata in No. 77.—In consequence of the Editor's absence while part of No. 77 was in the press, the following corrections require to be made:—P. 352, line 29, for *brought* read *bought*; and line 33, for *Balin* read *Berlin*.—P. 368, line 23, for *conclusion* read *conclusions*.—P. 369, line 13 from bottom, delete the comma before *myself*.—P. 372, line 7, insert a comma after *published*; line 10, for *From* read *In*; and last line, insert a comma after *contents*.—P. 394, line 28, for *u* read *zu*; and line 31, for *Außage*

read *Avulage*.—P. 406, line 5 from bottom, insert a comma after *commis-sioners*.—P. 407, line 9, insert a comma after *nature*.—P. 409, line 12, delete the comma after *melancholy*; line 17, insert a comma instead of the period after *works*.—P. 411, line 31, for *last* read *75th*.—P. 414, 5th paragraph, for *Bouilland* read *Bouillaud*, and for *Casimir Broussias* read *Casimir Broussias*.

Books received.—The British Journal of Homœopathy, No. V., January 1844.—The Medical Times Almanac for 1844.—The Phreno-Magnet, Nos. IX., X., and XI., for October, November, and December 1843.—Fourth Annual Report of the Crichton Royal Institution for Lunatics, Dumfries, November 1843.—British and Foreign Medical Review, January 1844.—Medico-Chirurgical Review, January 1844.—The People's Phrenological Journal, Nos. 41 to 48.—Translation of Gall on the Functions of the Brain, Parts III., IV., V., 8vo. London: G. Berger.—The Medical Times, weekly, including No. 220.—The Zoist, No. IV., January 1844.—The Magnet, Nos. 6 and 7 of Vol. II.—Report of the County Lunatic Asylum, Forston, Dorset, 1844.—Report of the Royal Hospitals of Bridewell and Bethlem, &c. for 1843.—Neurypnology; or the Rationale of Nervous Sleep, considered in relation with Animal Magnetism. By James Braid, M.R.C.S.E. &c. London; J. Churchill. Edinburgh; A. and C. Black. 12mo, pp. 265.

Newspapers received.—Western Times, Dec. 23.—Glasgow Argus, Dec. 25.—Dublin Evening Mail, Dec. 27.—New Moral World, Dec. 23; Feb. 3.—Manchester Guardian, Jan. 10, 17, 31; Feb. 7, 14.—Glasgow Citizen, Feb. 3.—Liverpool Mercury, Feb. 2.—Staffordshire Advertiser, Feb. 10.—Dublin World, Feb. 24.—Liverpool Journal, March 2.—Wolverhampton Chronicle, March 6, 13, 20.—Worcestershire Chronicle, Feb. 7; March 6.—Boston (U. S.) Gazette, Feb. 17.—Coventry Standard, March 16.—Birmingham Advertiser, March 14.

To Correspondents.—A Letter on the Insane Poor in Scotland, and Mr Hytche's article on the Imperfection of Phrenological Casts, shall appear in next Number.—We are disposed to publish the communication of "An Old Subscriber," on Mesmerism; but, though not averse to the enlivenment of philosophy with pleasantry, we must be permitted to erase some of his puns.—"The London Phrenological Institution," of which Mr C. Donovan is "Principal," is not a public but a private establishment, the nature of which may be learned from his advertisement on the cover of our 74th Number.—We intend to notice some late Reports of Lunatic Asylums, with copies of which we have been favoured.

Communications for the Editor (prepaid) may be addressed to Mr ROBERT COX, 25 Rutland Street, Edinburgh. Books or parcels, too heavy for the post, may be left (free of expense) with the London publishers, Messrs Simpkin, Marshall, & Co., Stationers' Hall Court.—Articles intended for the next following Number must always be with the Editor six weeks before the day of publication. Communications for the section of "INTELLIGENCE," and also Advertisements, should be in hand at least a fortnight before the same day. Charges for advertising:—Eight lines, 6s.; twelve lines, 7s. 6d.; every additional line, 6d.; half a page, 14s.; a whole page, 25s. Advertisements may be sent to the publishers in Edinburgh or London.

EDINBURGH, 1st April 1844.

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NEW SERIES.—No. XXVII.

I. MISCELLANEOUS PAPERS.

I. *On the Application of Phrenology to the Fine Arts.* By
GEORGE COMBE. (Continued from page 140.)

TO THE EDITOR OF THE PHRENOLOGICAL JOURNAL.

ROME, 20th April 1844.

SIR,—I concluded my last communication by calling in question the universal application of Sir Joshua Reynolds' observation, that "we are sure from experience that the beauty of *form alone*, without the assistance of any other quality, makes of itself a great work;" and stated that this dictum holds good absolutely, only in the case of objects the chief excellence of which consists in beauty of form—such as vases and columns. The human body is the Temple of the Mind, and its highest attribute is the expression of that which it contains. I have endeavoured to shew that the brain, when developed in those forms and proportions which render it most perfect as the organ of the mind, is combined by Nature (when she acts normally) with the most perfect forms and proportions of the rest of the body, viewed in relation to health, activity, and enjoyment. These combinations are also the most noble, dignified, and beautiful, when we regard the human figure as a mere object of art. It is quite true that the Greek statues and Torso afford, by the beauty of their forms alone, great pleasure to persons in whom the organs of Form, Size, and Ideality are largely developed. But if to the same beauty of form, be added an equally perfect expression of high mental qualities, the pleasure

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is increased to an extent as great as that to which the interest excited by powerful emotions and profound thought exceeds that elicited by mere matter, even when clothed in its most perfect forms and proportions. This truth is recognised by Kugler, who, in speaking of the school of painters named *Naturalisti*, from their copying nature too servilely, says,—“The forms which they bring before us are not those of nature in a refined state, like those of the great masters in the beginning of the sixteenth century—a *nature in which beauty is the evidence of moral harmony*, and the feelings of love or hatred seem the indications of a godlike energy.”* There is profound truth in these remarks; but I find that, while an indefinable quality, called “character,” is highly appreciated by critics and modern artists, some of them sneer at works expressing individual or combined emotions, or distinct intellectual action. The uninitiated public and such persons are at open war on the merits of works of this kind. For example: there is in Imhoff’s studio here, a group of Hagar and her son in the desert, which tells the story of her sufferings in the most pathetic manner. Her son lies extended at her feet, supporting himself on one arm, and with the other presents a vessel to his mother, imploring her for water. The earthen bottle, in which she had carried this necessary of existence, hangs in her hand with the neck downwards, indicating that the last drop is drained. The boy is dying from thirst and exhaustion, and the mother stands beside him, the very personification of maternal affection, almost sinking under despair. Unsophisticated yet educated women have wept in looking on this group; but some artists condemn it as a work belonging to a low style, aiming at creating interest by an appeal to common, not to say vulgar feelings, instead of resting its claims exclusively on beauty of form and proportion. I do not pretend to decide on the abstract artistical merits of this group, and introduce it merely as an illustration (confessing, however, that it deeply interested me); and remark, that while I consider mere mental expression, *without* purity and beauty of form, to be far short of the highest merit in a picture or statue, yet I cannot place *form alone*, without expression, above it. The combination of the two qualities is necessary to constitute a perfect work. This truth will be admitted in words by many artists who aim at practising it; but generally speaking, modern Italian painters and sculptors bestow more attention on beauty of form and proportion, than on expression. I ascribe this state of things to the want of a philosophy of expression—in other words, of a true philosophy of mind; and this again to the want of a knowledge of the

* Hand-book of Painting, p. 413.

functions of the brain, and of its influence on the forms and expression of the body. It strikes me, also, that expression is more valued and cultivated by foreign than by Italian artists of the present day.

As the relative importance of expression and form is disputed, I beg leave to add a few illustrations of the rank which I assign to each. In sculpture, form and proportion are equivalent to melody and time in music. Melody and time are in themselves pleasing, because they are addressed to and agreeably excite the organs of Tune and Time: but beautiful forms and proportions, as well as simple melody and time, are mere elementary sources of pleasure. Harmony in music corresponds to grouping in forms; we bring together, in the one instance, sounds, and, in the other, forms, that are accordant. Even, however, when we proceed to produce harmony and grouping, we advance only one step above the elements of music, painting, and sculpture; for these acts imply merely putting simple elements agreeably together, which is done by the aid of Comparison, in addition to Time and Tune, or to Form and Size. But forms and proportions, and also notes, stand in such a relation to the other mental faculties that they are capable of expressing their activity. Deep low tones express the activity of the animal propensities; they are their natural language; and it is said that lions and tigers become excited and enraged when they hear them. Soft and rich tones are the natural language or expression of the moral sentiments; while clear cold silvery notes express intellectual conceptions. Now, I believe that I am justified in saying, that when a musical composer, to the purest and richest melody, and the most perfect harmony, adds forcible and clear expression of the various mental states which agitate and delight the soul, he realizes the grandest aims of his art; and that, of all these attributes, the last is the highest and most powerful in its effects. Melody, harmony, and time, when expression is omitted, may delight the connoisseurs and *artistes* in music, in whom the organs of Time, Tune, and Comparison are highly cultivated, who appreciate difficulties in composition and execution, and admire skill in surmounting them: but a general audience brings to a concert only the propensities, sentiments, and intellectual faculties in their common state of activity; and as the propensities and sentiments are by far the most active and influential of all the faculties, expression of emotion alone will deeply interest and delight them. In like manner, while beauty and proportion of form will gratify the connoisseur and artist, and all in whom the organs of Form, Size, and Ideality are large and well cultivated, they, if standing alone in statuary

or painting, will fail to rouse emotion or excite vivid pleasure in the spectators generally. The reason of this is obvious. Form and proportion, besides their elementary powers of pleasing, are also, like melody and time, instruments of expression. For instance, Retzsch's illustrations of Shakspeare, and Flaxman's designs, in addition to great purity and grace of form, embody sentiment, emotion, and intellectual power; yet they are mere outlines, mere assemblages of forms and proportions. If, then, forms and proportions are instruments of mental expression, I ask, on what principle can it be maintained that they, in their elementary condition, can ever accomplish as much in art, as when, with all their native excellencies undiminished, they are also made to express the loftiest conceptions and emotions of the mind?

Assuming, then, the importance of expression in statuary (and the same remarks apply to painting), I proceed to inquire into the *philosophy* of expression. If the human body is really the Temple of the Mind, it is reasonable to expect that every part of it will express the character, or some quality of the character, of its inmate. Accordingly, in my last communication I pointed out some important relations between particular corporeal forms and particular mental endowments; and in continuing the subject, I may be obliged to repeat some of my former remarks, for the sake of connection.

To express generally strong mental power,—animal, moral, and intellectual,—the head must be large in all its regions. Raphael, by means of that wonderful instinct, or accuracy of observation, which led him so generally to truth, seems to have felt this connection; for I have found, that, *as a general rule*, he bestows amply developed brains on those characters to whom he attaches interest and importance in his pictures. Occasionally, but rarely, he fails to observe this rule. Andrea del Sarto, on the other hand, occasionally paints saints and patriarchs with brains below an average in size; and the diminished expression of mental power and dignity is at once felt, even by observers who do not know whence the difference between the effects of Raphael's pictures and them proceeds. This, however, is only one cause of their inferiority; but it is a marked one.

To express general feebleness of mind, the three regions of the head should be small: the celebrated Venus de Medici is defective in this particular. The brain is too small even for average mental power: the limbs manifest more mind than the head. When the general size is much diminished, it expresses idiocy; and when too much increased, it indicates cretinism or other forms of disease.

To express great animal propensity, the base and lower hinder parts of the head should be enlarged ; to express great moral excellence, the coronal region ; and to express great intellect, the anterior lobe. These rules have generally been observed by Leonardo da Vinci and Raphael. In Leonardo's celebrated picture of "The Last Supper," the head of Christ is the highest in its forms and proportions ; that of St John the next ; that of St Peter is inferior ; and that of Judas the lowest—judging of them according to the rules now expounded. "The Last Supper" has been sadly injured by time and injudicious repainting ; but with all its imperfections, the observation in Murray's Hand-book is correct, that "the best copies, the best engravings which we have of this painting, convey only an imperfect notion of its beauty ;" and, I may add, for a very good reason—they are not true. The artists who copied it seem to have had no correct conception of the *meaning* of the forms and expressions which Leonardo has given to his heads and figures ; and they have transferred them to their own canvass much in the same way as a printer's compositor transfers to his own sheets, the text of a book the language of which he does not understand. The difference between an *m* and an *n*, or between an *e* and a *c*, appears to the eye of the compositor so small as to be scarcely perceptible ; the words, in point of form, look so much alike, that he perhaps never dreams of the change which the substitution of the one letter for the other makes in the sense. So is it with the copying artist who does not understand the principles of expression. He omits a line here and adds a line there, deepens a shadow or increases a light, all so slightly, that he is unconscious of any deviation from the original ; yet the instructed critic unhesitatingly pronounces that he has changed the character. Leonardo's head of Christ is not a highly imaginative representation of pure intellect and moral sentiment ; it does not express the *divinity* so much as the *humanity* of the Saviour. It is a *bona fide* human head, in form, expression, and colouring. I have seen its type in nature, and recognised the expression which it bears. The temperament is nervous-sanguine ; the head is large ; it is of full breadth at the base and sides ; the moral region is very large ; and the anterior lobe is long, broad, and high. The head reclines slightly to the left side, and the eyes look down. Cautiousness, Secretiveness, Benevolence, and Veneration, are large, and the countenance expresses the action of them all. It is sad, meek, resigned, benevolent ; shut up within itself, with closed lips ; yet full of deep interest. The ample development of the basilar and lateral portions of the brain, gives it a *human* character ; yet all its earthly elements

are so thoroughly imbued with moral excellence and intellectual power, that the combination is in the highest degree elevated and impressive. *Noble* is not the term by which to designate it; it is too meek, too good, too unselfish, to be properly described as noble. It is more; it is generous, benignant, patient, sad, and intellectual, bowed down with sorrows not its own; and altogether like the purest and best of the genus Man, visited, but not broken down, by sorrow and suffering. It is the *humanity* of the figure which renders it so intensely interesting. The head of St John is not so large; it represents the moral and intellectual organs as predominating, and the countenance conveys the corresponding expression of sweet, soft, gentle goodness, of devotion, affection, and intelligence. In the head of St Peter, the posterior lobe of the brain is enlarged, representing Combateness, Self-Esteem, and Firmness more developed; but still with a large anterior lobe and well-developed moral organs. His expression corresponds to this combination. It is decided, passionate, and powerful. The head of Judas has the mass of the brain behind the ears, a low forehead, and deficient coronal region; with a harsh, selfish, villanous expression of countenance. It is such powers of combination that indicate the master-mind in the artist. This picture makes an indelible impression on every cultivated and well-constituted beholder; and why does it do so? All its elements are *true to nature*, and the combination of them is accomplished with consummate skill. We can now point out *in what* this truth consists: it has long been seen and felt, but rarely successfully analyzed. I could fill a whole number of your Journal with criticisms of this description; but the present one, I hope, will sufficiently indicate the ideas which I mean to convey.

In the next place, to express great *individual* mental power, or deficiency in an *individual* power, the corresponding organ must be represented large or small in the head. I lately called on an artist in this city, and found him engaged in drawing a noble figure, the size of life, full of intellectual power, dignity, and grace. He asked my opinion of it, and I conscientiously expressed my astonishment at his success, but added that something was still wanting. He said, that he *felt* this to be the case; that it did not come up to his own imagination of the figure, yet he could not discover in what its defects consisted. I remarked, that, in the first place, the line of the head backwards from Veneration *descended*, indicating *deficient* Firmness and Self-Esteem, while the countenance and attitude expressed both qualities strongly present. He raised that line, and added to the mass of brain in the region of these organs; and acknow-

ledged at once, that this was one step towards realizing his inward feeling : it gave harmony to the expression of dignity and determination in the face and head. Secondly, he had made the perpendicular line of the chin a little prominent and curved : I pointed out that predominant Firmness compresses the chin, renders its outline straight, and draws it in towards the neck. He made this change, and found the harmony of expression increased. Thirdly, he had represented part of the hair as strong and stiff : I pointed out to him that he had drawn the nervous and sanguine temperaments powerfully expressed, and given age to his figure ; and that, in such circumstances, the hair in nature is extremely fine and flowing. He altered this, and, by the change, saw the countenance and hair rendered more perfectly harmonious. I need not enlarge on this subject ; suffice it to say, that this artist, who is a man of great talent, expressed his surprise that knowledge of this kind should exist, and yet be known to so few artists ! My own cerebral organization renders me incapable of drawing the simplest object correctly (which I told him) : yet the knowledge of Phrenology enabled me to point out to him where lines were wanting, or erroneously added ; by aid of which information his practised hand brought forth the very character that had existed in his own mind, as matter of feeling or impression (so he described it), but which he had in vain laboured to embody on the canvass to his own satisfaction.

I do not mean to insinuate that a knowledge of these rules will ever prove a substitute for genius, or enable an ordinary artisan to compose a perfect statue, or paint a first-rate picture, mechanically, as the blacksmith produces patent locks or steelyards by rule. All I anticipate is, that they will serve as guides to enable genius to realize successfully its own inspirations. They will reveal to the artist a precise knowledge of the elements, and their relations to each other, by the combination of which he may produce great works ; but the power of wielding the elements themselves, and of combining and applying them, will depend on his own genius and acquirements.

I have already alluded to instances in which men of great talent and extensive experience have failed in their works from ignorance of the signification of the elementary forms which they combined ; and I could add others. One, which forces itself on my recollection, I shall here notice very briefly. In the studio of a sculptor here of considerable reputation, I have found the same forms of the head and features and limbs, only slightly modified, pervading nearly all his ideal figures. He has filled his mind, apparently, with strong re-

collections of the Greek form of head (and head-dress in females), eyebrows, nose, mouth, cheeks, chin, trunk, and limbs; and these are reproduced in every figure, whether it be Psyche or Venus, one or other of the Graces, Juno or Flora. There they stand, like twin-sisters, every one very beautiful in form and proportion, very classical, but shewing very little of the beautiful variety of nature. When ranged side by side, they look *all* artistical. It is probable that when the constituent elements of a high and refined nature shall be generally known, the want of individual character and variety in these and other figures of the same class, will be recognised as a defect. That they are graceful and beautiful in form cannot be doubted, and this will render them always valuable; but the beauty of an artificial combination of forms, repeated and repeated till it produces satiety, and excites the idea of poverty of invention, is a slender foundation on which to build for lasting fame.

As a contrast, I may mention, that I was struck with the truth of the individual character exhibited in the heads and physiognomies of a large collection of portraits of eminent men, drawn by a German artist resident here. They spoke the language of nature so strongly that they vouched for their own accuracy. He told me that his father, who was a painter, attended Gall's lectures in Germany, and gave this counsel to him when entering on the same profession:—"Study Phrenology for the sake of enabling you to draw the head accurately: every line of it has a meaning." My informant, the son, followed this advice, so far as to study and represent the forms and proportions of the head with the same care as he does the features of the face; and hence has come the truthfulness which I have just mentioned. If these minute forms and proportions in the head convey a strong expression of truth in portraits, they cannot be unimportant in ideal sculpture and painting. Their significance is felt even by persons who are strangers to Phrenology; while to the phrenologist they are the speaking tongues of Nature. To please cultivated minds, the ideal figure must represent Nature in her truth and beauty; and this can never be accomplished by suppressing or changing, arbitrarily, her most significant elements of expression. Of all the artists whose works I have observed, Leonardo da Vinci and Raphael are the most pre-eminent for attention to true individual forms and proportions in the heads of their figures. No critic of taste can accuse *them* of representing commonplace or vulgar nature; yet they have embodied *individual* nature with an extraordinary fidelity. Their genius seized the *special* forms and proportions which are constantly con-

nected in living men with *special* mental qualities ; and these forms and proportions they embodied faithfully, elevating only the style, but rarely changing the type. Leonardo's head of Judas, for example, (copied in my phrenological works as an example of the bilious temperament,) is characterized by the indications of low reflecting intellect and deficient moral sentiments, and by a great development of the organs of the propensities and lower sentiments situated behind the ear : it is the head, therefore, of a low, selfish character. But it is *not* a vulgar head, and *not* a brutal head ; there is the same quality about it which we find in Milton's Satan ; he is a powerful, and not a mean, creeping, or sneaking scoundrel. In short, Leonardo and Raphael communicate force, power, and elevation to their heads, all natural as they generally are ; and this is the achievement of genius.

The next point to which I advert is the natural language of the faculties, as it exhibits itself in the attitudes of the whole person, and in the play of the features of the face. This is what is generally understood by expression. The actor exhibits it on the stage ; the caricaturist, by exaggerating it, produces his most powerful effects ; and the sculptor and painter deal with it, more or less, in their ideal figures. It is matter of controversy, however, among critics, how far the latter artists can, with advantage, avail themselves of it in works of the highest order. The Dutch painters and others who represent humble life, employ it largely ; but the highest authorities regard it as an element which must be very sparingly introduced into historical painting and classical sculpture.

In my previous communication (page 137 of this volume) I mentioned, that the philosophy of the natural language of each mental faculty, as it expresses itself in the looks and gestures, is discussed and elucidated in the works of Drs Gall and Spurzheim, to which I beg leave again to refer. This natural language may appear in an individual in a state of great intensity, and it then becomes the expression of the passions ; or calmly, and it then indicates his habitual dispositions and intellectual states. Sir Charles Bell has treated of the nerves and muscles of expression ; but in consequence of his being unacquainted with the primitive faculties, he has advanced but a little way in elucidating the action of these nerves, and the forms which these muscles assume in expressing *particular* mental states. He gives a representation, for example, of the mode of action of the muscles in *laughing* and *crying* ; but he did not carry his researches so far as to announce that each faculty has a laugh peculiar to, or characteristic of, itself. The laugh of Destructiveness is bitter, and that of Self-Esteem is scorn-

ful ; that of Benevolence is soft and pleasing ; that of Love of Approbation is insinuating ; while that of Secretiveness is sly. The laugh of Destructiveness and Self-esteem acting in combination is bitter and scornful ; and so forth, in regard to the combinations of the other faculties. Each of these laughs produces a peculiar action of the muscles and expression of the eyes. And the same observations apply to crying. The crying of a child, animated by an injury which has roused his Destructiveness, is quite different from that of one excited to crying by mortified Love of Approbation. Sir Charles Bell has given two drawings illustrative of laughing ; one is the laugh of the gratified animal propensities acting along with Benevolence, and the other that of Ideality, Wit, and Intellect. The artist who hopes to deal as a master with expression, needs to know the forms which nature assumes in all those instances ; and they are discoverable when the key to them is possessed—namely, a knowledge of the primitive faculties, and of the peculiar motions and lines by which each of them expresses its activity in each of its modes of action and grades of intensity. The expression of each, in repose, in joy, in sorrow, in a state of offence, in a state of gratification, and in a state of passion, is a modification of its intrinsic and unchangeable form : When this last is known, the others may be learned ; but when it is not known, the attainment of a correct discrimination of them is extremely difficult. It is on this account that I have so often repeated that a great artist needs to be, not a superficial, but a profound and deeply-skilled phrenologist, in order to understand scientifically the elements by the combination of which he seeks to found his fortune and his fame.

In judging of expression as an element in works of art, it is necessary to distinguish between the results of small organs of the faculties in a state of intense excitement, and of large organs in the same condition. I have watched on the stage an actor with a small brain but very vivacious temperament. He was peculiarly *intense* in his scenes of passion and emotion, but there was not a corresponding amount of mental weight and power to add greatness to that intensity. He resembled a puddle in a storm. He screamed, gesticulated, and roared, and tore the passion to tatters. In short, he endeavoured, by *motion*, striking attitudes, and grimaces, to express his own feelings of the character, and he expressed all that he really felt—intensity ; for his small brain could not express great power. When, on the other hand, the brain is large as well as active, the effect is different. Mrs Siddons, in some of her grand scenes, combined great power with the

most perfect tranquillity. She embodied the emotions in that state in which they appear in a great nature; one in which inherent power rises up, without agitation, to the exigencies of the grandest and most trying situations; in which intellect never loses its control; and in which the natural language of deep and powerful emotion is depicted on the countenance and pervades the body, without breaking up its surface into lines and furrows. This calmness of the outward form, while gigantic passions are seen within, affords the truest expression of the moral sublime. It appears to me that the expression of feeble emotion in intense excitement is not adapted to sculpture and painting (and this is the quality generally meant by critics when they condemn expression); while, on the other hand, the expression of great mental energy, in deep, yet unruffled intensity, is indispensable to works aspiring to the highest place in art. A few illustrations will render these ideas more clear.

In the Ambrosian Library at Milan, there is a cartoon in black chalk, by Giuseppe Bossi, a modern Italian painter, lately deceased: the subject is "*L'Esiglio di Edippo*." Here the figures stand like actors on the stage, each precise in attitude, striking in features, bustling and busy. They have the frappant attitudes and forcible external expression of the French school, characteristic of small brains in intense excitement; and the heads, in perfect harmony with the expression, are all under-sized in proportion to the bodies. There is an air of smart elegance about the figures, and the drawing is good. We see at once that the performers are animated by strong emotions, which are vividly expressed in their features and attitudes; but the expression is that of intensity without depth, in which muscular action takes the place of solid mental power. If they were to move, their motions would be all rapid and sharp; and if they were to speak, they would utter torrents of impassioned words in small voices: great mental power, in its expression, is calm, deliberate, and deep. There is no want of Concentrativeness in them. They are engaged in the scene; but their mental endowment is too slender to engage the spectator as deeply as themselves. He is disposed to ask, What is all this small intensity about?

In the same Library is Raphael's cartoon of "*The School of Athens*," very different in its character from the preceding. It represents great-minded and large-headed men, each engaged with his own weighty subject, expressing in his attitudes and countenance powerful faculties, intently occupied with their proper objects. Raphael presents the natural

language of the faculties in a state of activity and power, excluding every trace of feeble intensity and agitation.

Another striking illustration has just fallen under my notice. Signor Tenerani, a distinguished Roman artist, and a pupil of Thorwaldsen, has executed a colossal figure of an angel awaiting the order to sound the last trumpet, which is to call the dead from their graves before the tribunal of their Judge, to receive their everlasting doom. A more sublime conception could scarcely have been formed, and it is interesting to trace the history of its execution. The artist told me that he had made several small models of the figure, none of which came up to his own conception of the subject. One of these he shewed me. In it the angel has an ample observing and practical, but not a large reflecting, development of brain; *i. e.*, the lower ridge and perpendicular middle region of the forehead are large, but the upper horizontal portion, the seat of Causality and Wit, falls back and slopes away at the sides. This form indicates an inquiring, observing, and practical, but superficial intellect. The eyes and head are turned upward, and to the side, in the direction of the organ of Wonder, and the expression of the countenance corresponds precisely with this combination. It is full of eager expectation; its attention is directed entirely outward—it is actually watching for a wonderful event. The whole figure is in harmony with the character of the head. One arm presses the back of the seat on which the angel sits, to assist him in an instantaneous spring to his feet; the hands hold the trumpet short, prepared to raise it in a moment to the mouth; and the legs are placed one partly behind the other, calculated for instantaneous rising. An air of fidgety anxiety pervades the whole being. We see a feeble mind, and a small brain, intensely excited by the consciousness of its situation. In the colossal work, as actually executed, every thing has been changed except the original idea. The head now exhibits a large, broad, massive anterior lobe, indicating capacities for the profoundest thought. The *eyes* are turned *upward*, but *not outward*, and the expression is that of Wonder acting along with Veneration and Causality. The *head* is *not* turned to the *side*, but rests perfectly straight; and the countenance indicates profound, but sustained and tranquil thought, mingled with an indescribable awe. The arms and hands rest on the thighs, and hold the trumpet in perfect repose; while the legs are apart, as they appear in a person seated to rest, and not occupied with the thought of changing his position. A sublime tranquillity pervades every part, the solemn drapery included. The mind is deeply occupied, but not agitated, by the stupendous approaching event. Its awful results and indescribable sublimity are

understood, felt, and expressed, by that head and countenance. There is not, in the whole lineaments of the figure, a trace of self-confidence, yet it embodies an inherent power and grandeur fully adapted to the situation. In the small model the mind was feeble, but the emotions were intense, and all was surface expression, anxiety, and theatrical effect. The finished work embodies the profound emotion of a great and powerful nature, in which the inherent strength rises, without agitation, to the exigencies of the most trying and awful situations, and in which the intellect never for a moment loses its control. The exterior calmness and composure of such a mind constitutes, as already remarked, the true moral sublime.

This great work has been executed from inherent judgment, without the aid of Phrenology, and bespeaks the highest genius; but near it one finds evidence sufficient of the advantages which even such a mind might derive from this science. The same artist has represented *Psyche*, the personification of the soul, with a small feeble anterior lobe, moderate moral sentiments, and a preponderating hind-head, indicating strong animal propensities. The countenance is fine in expression, and the forms of the body and limbs are beautiful; but the head detracts sadly from the merits of the statue. The celebrated *Psyche* of the ancients, in the Museum at Naples, exhibits a very long and large anterior lobe, with the most perfect combination of intelligence, moral purity, and feminine loveliness and delicacy, that imagination can conceive; and one wonders how, with such a model, such combinations as those now mentioned could be made by a man of taste, genius, and judgment. Phrenology would not only save him from such errors, but facilitate the execution of all his great conceptions.

The last element of expression requires a more minute elucidation than some of those already treated of. I again refer to the figures and remarks contained in my former paper; and beg leave to recapitulate, that the anterior lobe of the brain manifests intellect; that the fibres which constitute it proceed directly to the anterior column of the spinal marrow; that from this column proceed the nerves of voluntary motion, and that these are ramified through every muscle. The nerves which give motion to the face come from the same line of fibres. The organs of the propensities and of the moral sentiments, also send fibres to the vertebral column for motion, and by means of them excite the muscles to instinctive movements expressive of their activity.

The nerves of feeling transmit no impulses from the brain downwards. Their function is limited to conveying sensations upwards and inwards to the *posterior* column of the spinal

marrow, and thence to the brain. They act, therefore, as indirect stimuli to the nerves of motion. When the skin is injured, the sensation of pain is carried inwards and upwards to the spinal marrow and brain, and a voluntary movement follows, calculated to remove the cause of the suffering, or to withdraw or protect the injured surface from its influence. The more numerous the nerves of sensation are, the greater is the sensibility of the skin and muscles; and the higher the sensibility, the more varied and acute are the stimuli sent through these nerves to the brain.

Let us now proceed to trace the influence of the brain on the condition of the body. The larger the anterior lobe, the greater is the impression of intellectual power woven by means of the nerves of motion into the texture of the body. Under its influence the limbs are firm, elastic, and clearly defined in form, and exhibit a living nervous surface. When the anterior lobe is small, and the base and coronal region are large, this precise form, elastic texture, and nervous living surface, are diminished; if the coronal region predominate, the forms are round and graceful, but the texture is softer and less elastic. If the base predominate, the forms are coarse, and the muscles are covered with fat, or, if visible, seem to be made of ropes and not of silken cords, as in the cases where the anterior lobe and coronal region hold the decided pre-eminence in size.

There is a correspondence between the thorax and abdomen and the brain. It is rarely that a large anterior lobe and narrow base of the brain are combined with large lungs and a large abdomen; and equally seldom that a large base and small anterior lobe are combined with small lungs and a small abdomen. There is, therefore, generally speaking, a decided character pervading the whole corporeal frame of man; and every part of its visible surface expresses the *quantity* as well as the *quality* of the mental power which animates it. To represent great moral and intellectual power, grace and harmony of form are not of themselves sufficient. To them must be added nervous life in the surfaces, elasticity of flesh in the masses, precision in the forms; in short, that quality which artists and critics recognise under the name of character. I find this quality in most of the great pictures and statues; but I have met with few artists or connoisseurs who had formed any opinion of its causes, and fewer still who saw its relationship to mental character and development of brain. A few words may be added to elucidate its connexion with the latter.

Few doubt that the face of a man of great intellectual and moral power bears deep traces of thought and feeling in its

habitual forms and texture ; and that soft, rounded, undefined, and lymphatic cheeks, and drowsy eyes, speak of slothful habits and feeble intellectual faculties. These effects are produced, beyond all question, by the action of the brain on the nerves which expand themselves on the face and on the eye. To the touch, the skin and flesh in these cases *feels* different ; in the one instance, it is firm, elastic, and responsive ; in the other, soft, inelastic, and prone to retain the impression which it has received from the fingers. The same class of nerves pervades the whole external parts of the body, and performs similar functions in them as in the face ; and hence the whole body is an organ of expression of the mind. Farther, when an individual is exhausted by mental efforts and bodily fatigue, and sleeps, how strangely is the expression of his countenance changed ! The forms are now heavy and ill-defined ; the elasticity of the flesh has departed, and the mind no longer radiates from the features. Feel the condition of the thighs, the legs, and the abdomen, and in them similar changes will be recognised, even by touch. Now, what exhaustion of nervous energy and sleep accomplish in this case, is produced in a less degree by diminishing the nervous power at its fountain-head, namely, in the brain, and especially in the anterior lobe, which commands most forcibly the anterior vertebral column of voluntary motion.

I proceed to offer some illustrations of these principles. Sir Joshua Reynolds has said, that “ we are sure from experience that the beauty of form *alone*, without the assistance of *any other quality*, makes of itself a great work, and justly claims our esteem and admiration.” And, as a strong “ instance that this excellence alone inspires sentiment,” he asks, “ What artist ever looked at the Torso, without feeling a warmth of enthusiasm, as from the highest efforts of poetry ? From whence does this proceed ? What is there in this fragment that produces this effect, but the perfection of this science of abstract form ? ” I reply, with great humility, that there is in it an extraordinary expression of mental life and energy. Every part of it is alive ; and it is this quality which gives it such effects. Fearing that my imagination deceived me when I first came to this perception, I accompanied artists and connoisseurs, jointly and separately, to the Vatican, and, after pointing out the quality in question in this fragment, led them to scrutinize the expression of the surface of another mutilated statue, also of beautiful form, but without nervous life ; and they recognised the difference.

“ As a proof,” continues Sir Joshua, “ of the high value we set on the mere excellence of form, we may produce the greatest

part of the works of Michael Angelo, both in painting and sculpture, as well as most of the antique statues, which are justly esteemed in a very high degree, though no very marked or striking character, or expression of any kind, is represented." With the utmost deference to so high an authority, I am compelled, by my own perceptions and convictions (and at the hazard of incurring contempt for my erroneous judgment), to pronounce that there is a grave error in this criticism. Michael Angelo's statues and paintings are overflowing with nervous life and energy, expressive of *great mental power in intense action*; and it is this quality, more than all the others they possess, which has acquired for them their high reputation. Let us select, as an example, his statue of "Christ holding the Cross," in the Church "S. Maria sopra Minerva." The form and character of the head is low; the forehead is not large; the general size of the head is moderate; and the countenance expresses slightly peevishness and anger. The body and limbs, however, are to an extraordinary degree expressive of life and energy; they are, in this respect, of a far higher type than the head. Jesus grasps his cross as if he were going to strike with it, or firmly resolved to hold it against some one who threatened to rob him of it; and his muscles are in consequence in a state of vigorous tension, shewing the anatomical knowledge of the artist. But more is expressed than mere physical strength. Life, energy, mental power, and determination, are imprinted on the figure all over (except the head); and, in my humble opinion, it is this quality, and not the beauty of the forms alone, which arrests the attention and rouses the feelings of the beholder. The same remarks apply to his celebrated "Moses" in the Church of "S. Pietro in Vinculo." The statue is intended to represent Moses when he descended from the Mount, carrying the Tables of Stone, and found the Israelites worshipping the Golden Calf. It is portentous with indignation; but the wrath is that of a low mind, and the forms of the head are low. The countenance bears the expression of Amativeness, Secretiveness, and Destructiveness. The anterior lobe is very long but narrow, and not high for its length. Ideality is small, and the coronal region is deficient, particularly in Firmness, while the posterior lobe is large. At a short distance, the aspect and expression of the head, with its pair of horns to the face, resemble more those of a gigantic powerful angry satyr, than those of a high-minded and inspired prophet; but in proportion as we recede from the figure, and lose the perception of the individual features, the appearance becomes more graceful and grand; and the statue, being colossal, was intended to be so viewed. The figure is

sitting and draped, but the arms are uncovered, and they are full of nervous life and energy ; while the attitude and forms of the body convey, even through the drapery, the impression of a being animated by great mental power highly excited. The head, character, and expression, are not in harmony with each other, or with the situation ; and, in my humble opinion, it is the stamp of stupendous mental energy which chiefly gives interest to the work. In short, Michael Angelo, like Shakspeare, committed many sins against taste, nature, and reason, but communicated to his works such a vigorous character of genius, that it carries them triumphantly down the stream of criticism and time, with all their imperfections on their heads, provoking partial condemnation, yet ever carrying captive the sympathies of kindred spirits.

As a contrast to these, I may advert to one of Canova's great works, the monument to Pope Clement XIII., in St Peter's. The head of the Pope is full of life and beauty ; beneath him, on the right, stands a colossal figure, draped, representing Religion. Neither the face nor arms of this statue have much life. On the left reclines an Angel undraped. The *forms* and proportions of the head, arms, and thighs, are beautiful, elegant, and refined ; and the expression of the countenance is pleasing. The thorax and abdomen are well formed ; but the latter is rather too large for a high character of male beauty. The whole figure is remarkably deficient, however, in the quality which I name nervous life, energy, and sensibility ; and it makes only a feeble impression on the spectator, unless he be an admirer of beauty of mere form and proportion. At the foot of the monument are two couching lions ; and, strange to say, they are instinct with life and energy to so high a degree, that, although in a state of perfect repose, they, by this quality alone, distract the attention of the spectator from the Angel and Religion, and rivet it irresistibly on themselves. The quality of life and animal power is woven into their texture, and the effect is proclaimed by the innumerable representations in marble, bronze, lithography, and engraving, of these lions, which one sees not only in the shops of Rome, but all over Europe. The Angel, although, in mere forms, far more beautiful, is comparatively unknown to fame.

I may add to these illustrations, a short notice of two celebrated ancient statues, "The Dying Gladiator" and "Antinous." It is now generally admitted that the first figure represents, not a common professional gladiator, but a noble Gaul in captivity, compelled to act in this degraded character. The thorax, abdomen, and limbs, all belong to a refined and in-

tellectual, but healthy and vigorous man; they are elegant, express in form, and replete with nervous life, energy, and sensibility. The hands alone are large and coarse, and appear unfinished. Michael Angelo restored the right arm, and has done it extremely well; only he has put a little harshness into it, which is not found in the statue in general. The head is lower in character than the body. It looks like a portrait; the breadth is average, and the anterior lobe also is average in size and combination, the knowing organs predominating. The countenance is not sensual, nor low in expression, but strong and rather coarse. All the rest of the head is covered by thick matted hair, too coarse for the character of the body. This work has been highly and justly praised by Sir Charles Bell, for the anatomical and physiological knowledge displayed in its forms and attitude; and Byron accurately describes its mental expression. The Gladiator is quite abstracted, and thinks of objects far away from the scene in which he is dying; while the manly frame expresses pain and ebbing life, not in contorted limbs and swelling muscles, but in firm endurance and noble resignation. The great characteristic of it (and the same remark applies to the "Laocoon"), is the animation of the whole figure with nervous life and sensibility, without the expression of motion. The muscles are all still, and the position is fixed; yet sensibility and life pervade every portion of the body and surface. The only remark that presents itself to the disadvantage of this great work is, that in life a head of that form is not found in combination with such a body. It could not supply the high influences which fashioned and still radiate from that admirable structure.

Near this statue is one of Antinous, "the favourite of Adrian," No. 13 (p. 94) of the catalogue. This is a fine graceful figure; the forms of the face, thorax, abdomen, and limbs, are flowing and elegant, and the proportions are good; but, in point of interest, they are far inferior to those of the Gladiator. The limbs indicate a layer of fat beneath the skin; they are not express; and, compared with the Gladiator's, they are deficient in life and sensibility. They form a striking contrast to these, and serve to exemplify how much less the spectator is moved by beauty of mere form and proportion, than by mental vigour, when combined with fine forms, and woven into the texture of the frame.

Similar observations apply to painting. *Small cerebral organs*, in a state of intense excitement, produce, as I have said, great external agitation in the frame: the eyes roll or stare; the limbs move rapidly, and the muscles in them, and also in the face, rise into sharp lines, giving exaggerated expression of

mental emotion. When *large* cerebral organs are excited, there is less outward movement;—but an undefinable expression of strength, weight, and depth of passion and of thought, pervades the body. In “The Crowning of the Virgin,” by Julio Romano, in the Vatican, the Apostles stand round the sarcophagus from which Christ has risen (now filled with flowers), while Jesus crowns the Virgin in the sky. This picture represents what in nature would result from small brains in intense activity. The eyes stare, the hands are raised, the attitude bespeaks violent agitation, the lines of motion are sharp; and on scrutinising the faces, there is perceived in them a lack of mental depth and power, corresponding exactly with the weak nervous flutter of their figures. On one side of this picture is the same subject, painted by Raphael when he was very young. It is full of grace, playfulness, and fancy; but the youth of the artist is seen in careless drawing in some of the figures, and in a great want of mental expression in the countenances of one or two, and only a small degree of it in those of the remainder, of the Apostles. They are not excited, however, like the figures in the picture of Julio Romano; and there is no contrast to distress the spectator between the fuss of their action and their mental feebleness. On the other side of the picture is placed Raphael’s “Madonna di Foligno,” in which the Virgin, St John the Baptist, a Pope and a Saint adoring, and a Cherub, form the chief subjects. To all Raphael’s grace, purity, and beauty, the picture adds a strong and deep representation of mental power, in calm activity, woven into the frames of the three human figures, while a kind of celestial vivacity and life seem to shine forth from the whole body of the Cherub. The attitudes are those of repose; but the influence of powerful and active brains pervades every part. The faces seem actually to live. Next to this picture is Raphael’s “Transfiguration,” said to be the greatest picture in the world. The first impression which it made on me, was far inferior to that which its reputation had led me to expect; but I distrusted my own judgment, and sought for instruction from artists. I was told that the “composition,” (which means the balancing and arranging of the group of figures, so as to combine unity, variety, and harmony), is perfect; that the drawing of each individual figure is perfect; that the expression of each in relation to his position, attitude, and character, is extremely fine; and that the lights and shadows are managed with extraordinary success. Some of these opinions are disputed; but allowing them all to be sound, still the impression on my mind remains, that this is not the greatest picture in the world. I can now explain the cause of this hesitation in recognising its supreme excellence.

The spectators in the picture, and the most prominent of the Disciples, are, to a certain degree, in a state of nervous flutter; their looks, attitudes, and gestures, are those of feeble, or at least common-place minds, excited and agitated by an event which upsets their mental equilibrium. The excitement is delicately and gracefully represented; but it is a very prominent feature, and is different from that calm, powerful, deep expression of perplexity and wonder, which is exhibited by great minds. Although some extent of flutter may have been natural in the spectators, a more vigorous expression might have been given in a great historical picture to the prominent Disciples. Those of them who are in repose, are more imbued with mental power; but even they, in my opinion, are inferior in this respect to the adoring figures in the "*Madonna di Foligno*." The "*Transfiguration*" was the last picture which Raphael painted; and he did not finish it. He died of a rapid fever; but this production conveys to me the impression that he was more nervously excited and more feeble when he executed it than when he painted the "*Foligno*;" and that the predisposition to disease was already upon him. The great charm of his "*Madonna de S. Sisto*," is the embodiment in it of great moral and intellectual power, in perfect repose; and it presents in this quality a striking contrast to the mental conditions represented in the "*Transfiguration*."

I conclude with a few remarks on the "*Apollo*" of the Vatican, which is generally recognised as the finest statue in existence. In point of form, proportions (except that the lower limbs are too long), and attitude, it is difficult to conceive any more perfect figure. Tried, however, by the principles which I have now ventured to expound, it is not so completely removed above criticism. The countenance embodies expression; but the precise nature of the emotion or intellectual state is so imperfectly defined, that different individuals read it differently. The cheeks are deficient in nervous life, while the thighs and legs present long graceful lines, very little imbued with that living nervous power, which gives attraction to the "*Torso*" and "*Laocoon*." It is said that a god should not shew the action of a man. But this statue is a personification of the god of poetry and music, and these imply mind. His body, therefore, should indicate in its nature that high quality which is the accompaniment of the human form, which he here assumes. I have been told that a theory which condemns the "*Apollo*," stands, itself, refuted and condemned. I reply, that the principles which I advocate, allow the highest beauties of form, proportion, and godlike dignity of attitude,

to the "Apollo;" and to minds who require no more, it may well appear perfect: But to critics in whom the organs of Form and Size are *minus*, and those of reflecting intellect and moral sentiment are *plus*, and who in consequence delight most in expression of mind, and view form chiefly as an element of expression, I must appeal against this sentence of condemnation.

I could add more illustrations, but must reserve them for a future communication. Meantime I remark, that the artists here to whom I have explained these views, and who recognise the qualities described, are divided in opinion concerning the condition of the surface in statuary and painting, which produces this appearance of nervous life, energy, and sensibility. I am pretty certain that it is not elicited by merely bringing the muscles into action; because in the "Dancing Faun" in the Borghese villa, an esteemed work, there is a strong expression of motion in the figure, without the quality of great mental energy. We see in nature men with small brains and active temperaments, often full of quick motions and intensity, whom we feel to be "Slenders" nevertheless; and this character is expressed in the "Dancing Faun." Bernini's "Pluto carrying off Proserpine," has the same character in the thorax, while there is a higher power of mind in the legs. I see examples also which shew that it does not depend on a *polished* or on an *opaque* surface in marble; for I have observed it present and absent indiscriminately in all these surfaces. Physiologically, I should conjecture that the numerous nervous fibres which penetrate the muscles and the skin, when acted on by a large and vivacious brain, keep up in these a certain fine and delicate tension and flexion, which produce unevenness of surface, but so minute, that it is not recognisable by the touch, although distinguishable by the eye. On examining the "Torso" and "Laocoon," I observed minute elevations and depressions on the surface, which broke the reflection of the light, and prevented the eye from taking in long, smooth, uniform lines or masses of light; while the "Apollo," and several other statues in which nervous expression of mental life is deficient, presented those long unbroken lines or masses. An eminent sculptor here told me, that too high finishing in marbles weakens the expression of life. A smooth surface of long unbroken lines of light in painting also is inexpressive. But in addition to the qualities of the surface, whatever these may be, a certain modification of form seems to be also necessary in the limbs, thorax, and abdomen, as well as in the face, to express mental power. These, however, are inquiries more suited to practical artists than to the speculative critic.

In submitting the remarks contained in this and my previous letter to the consideration of your readers, I beg to mention, that, while I have endeavoured to avoid theorising, and to record conclusions suggested by observed facts; yet the line of inquiry is so new, opportunities of observing the actual connexion between particular forms of the brain and particular textures and conditions of the body are so difficult to be obtained, and statuary and painting frequently present such wide divergences from nature, that I am deeply impressed with my liability to err. In regard to the most important facts and conclusions, however, I have sought for the aid of artists capable of correcting my impressions, and for the judgment of friends labouring under no bias; and I have also, again and again, at the distance of weeks and months, visited and examined most of the objects described, and have thus endeavoured to cultivate truth to the best of my ability. I shall be ready to consider attentively all objections and counter facts which may present themselves, and to rectify my views if they shall prove to be unsound. In my next communication, I shall examine the relationship between the development of the brain and the works of Raphael, Michael Angelo, and some other artists, so far as accessible facts enable me to proceed;—meantime remain, &c.

GEO. COMBE.

II. *A Glance at the Imperfections of Phrenological Casts.* By
MR E. J. HYTCHE.

As it is desirable to see every obstacle removed which impedes the study of Phrenology, I was glad to read Mr Adams' reference (*Phrenological Journal*, vol. xv., p. 283) to the inconveniences which attend the present mode of cast-taking. In numberless instances, casts form our only source of phrenological observation; and every cast is a new fact in the science, and must either confirm or correct former impressions. But, so long as the present inconveniences exist—excessive heat, and the prevention of free respiration—we shall be compelled to forego the collection of many illustrations of a striking character. Indeed, of persons who are liable to determination of blood to the head, it may be predicated that the extra heat of the brain, and the increased circulation of the blood therein, render the process highly dangerous. So also, persons in whom the organ of Cautiousness predominates, become so nervous, that the features are distorted, and, by the mus-

cular contortions, the very character of the head becomes changed.

But, after all, the inconvenience is not the greatest defect in the present mode of casting. Casts are often so inaccurate in the situation of certain organs, that it will depend upon the circumstance of the opinion being derived from the head or cast, if two phrenologists shall arrive at the same or different results. I have known Mr Deville to deliver one opinion, and another manipulator a totally different one, respecting the development of specific organs; and, what rendered the discrepancy more striking, organs that were decidedly small in the head were pronounced large. Subsequent enquiry, however, revealed the source of the error; for one had judged from the living head, and the other from the cast: in the one case, therefore, the thickness of integument had been appreciated, whilst in the other, the space of deficient organs had been so filled up, through the surrounding integuments being in-compressed during casting, that no clue was left. An illustration of this source of error came under my notice some time since. Having met with a case of small Weight, in which the organ was so defective as to cause a pea-like cavity over its site, I was desirous to have a cast taken as a peculiarly striking proof of the functions of that portion of the brain. But, when the cast was taken, to my surprise I found the signs of a very large organ. It appears that, in the person referred to, the integument over the superciliary ridge is very thick and abundant; the adjacent organs, moreover, are large; and hence I presume that the integument was forced into the cavity during casting, and thereby the surface between Size and Colour rendered perfectly smooth. Now, had an opinion been derived from the cast alone, the facts which I had accumulated for years would have been discredited; and the anti-phrenologist might have cited the case as a proof that there is no connection between the organ called Weight and the appreciation of gravitation. So, again, a friend, who has a noticeably deficient organ and desire of acquisition, had his cast taken, and nothing could differ more than the cast and the head, as respects the size of this organ. He is of the bilious or muscular temperament. The temporal muscle is very thick and broad, and when his teeth are clenched the muscle necessarily swells outwards, and becomes fully developed. The consequence is, that the region of Acquisitiveness becomes prominent whenever the muscle is exercised. As in nature, so in casting; the compression of the jaws rendered the muscle rigid; and, as it gradually rounded off, there was no clue to the change

in apparent development produced by the muscle ; and thus the small Acquisitiveness appeared very large. In most cases this misleading influence of the temporal muscle extends to Constructiveness and Tone, and in many even to Wit and Ideality. This does not happen so much with the nervous as with the bilious ; for I have observed that, in nine cases out of ten, the bilious have the temporal, as well as other muscles, in greater power, and that these are brought into action and rigidity sooner than in the other temperaments. This muscle often assumes a rope-like shape, and then there is a clue to its existence even in the cast ; but, occasionally, it gradually tapers off, and then most of the organs under its site are apparently enlarged.

The fact that the apparent size of the organs can be altered in the process of casting, is generally recognised as respects the organ of Language. Hence, when reading developments deduced from casts, we often find the size of Language reported as "uncertain." This uncertainty is occasioned principally by the greater or less thickness of the upper eyelid and the adjacent integument, which become more prominent during casting. I have reason to believe that this defect occurs less evidently in the nervous than in the bilious or lymphatic temperaments. The physical habit of the lymphatic is gross and replete with fat, and the integument over and surrounding the eyelid partakes of these characteristics. The integument of the nervous, however, is thin and fine, and the eye is seldom rendered prominent in a cast ; but, on the contrary, usually appears sunken. The result is, that in the cast of the lymphatic, we generally find the signs of a large organ of Language,—and the mere existence of that temperament should lead us to guard against the misleading signs by the probability of their existence. Still, however, the uncertainty remains ; and I should feel disposed to put little confidence in a manipulator who should dogmatically assert the size of Language, when inferred from the cast and not from the head.

Another unsatisfactory particular connected with casting, is, that erroneous notions are imparted respecting the size of the head. Whether it is occasioned by the expansion of the plaster-of-Paris, first in the mould, and then in the cast, it is, for others to determine ; but, whatever be the cause, of this fact there can be no doubt,—the cast is always larger than the head. I am not aware that the exact increase has been stated ; but I have found, on measurement, that whilst the circumference of the cast was 23 inches and a quarter, the living head was only 22 inches. The difference is striking ; but, were it even less, still, when we consider the

additional energy conferred by every extra inch of healthy brain, we shall perceive how different will be our estimate of cerebral power, according as we judge from the head or the cast. This evil becomes increased when a cast is taken from a cast; for, the expansion still proceeding, cast by cast, a medium head would at length be increased to any given size. It is, therefore, no mean desideratum to see this defect removed; but meanwhile, our judgment must be inaccurate if we do not allow for the enlargement predicated.

Another defect still may be noticed, namely, that, from the position of the head during casting, there is a liability to make the superciliary ridge protrude beyond the natural degree. I have seen in many casts such a great difference in this respect, that the shape of the forehead was entirely altered; and, almost in every cast, the natural facial angle is destroyed by the prominence given to the lower part of the face. So much of the character depending on the *relative* size of the perceptive and reflective groups, it becomes evident that if their proportions be altered, it is impossible to form an accurate judgment as to the intellectual qualities; for we ascribe a preponderance to the percepts which they do not possess in the individual, and we find little trace of that tendency to reflection which modifies, if it does not subdue, the power of perception.

Again, it is an important defect in casts, that they give us little aid in determining the temperaments. True, in most cases, *one* temperament may be traced; but where there are *mixed* temperaments—in other words, in ninety-nine cases out of a hundred—our judgment is likely to be incorrect. The bilious is the temperament generally presented in casts, there being traceable in most cases that austere rigid suffering expression, which is the pathognomical sign of the bilious constitution. In fact, this temperament often appears in casts when it cannot be traced in the individual. Thus, in a collection of 150 casts, composed equally of men of talent and men of ordinary character, no less than 110 indicated the predominance of the bilious temperament,—a proportion which far exceeds what we find in society. Next to the bilious, the temperament most readily traced in casts is the nervous. But if with this temperament there be combined the bilious, the latter will apparently predominate, although in reality the nervous preponderates. The chief index in casts to the nervous temperament, is that “lean and hungry look” which is the physiognomical expression of the living man. The lymphatic is also definable in casts; for the peculiar expression of the lymphatic—sleepiness and stolidity—is communicated to the plaster. But I have rarely seen a cast in which the sanguine

temperament was well defined, especially if blended with the bilious. The animation of the sanguine is noticeable, but how rarely is it communicated to the rigid material! It is, however, the want of the signs of blended temperaments, and so marked as to enable the observer to learn the proportions of each temperament, which we feel in casts. Often the bilious is alone seen when there is an equal admixture of the sanguineous; and when the sanguine and lymphatic are blended in the man, we rarely can trace in the cast any other temperament than the lymphatic. It is true, that delicately combined temperaments, the nervo-sanguine-bilious for instance, are often difficult to discriminate, even in the living man; but yet a close observer will generally find such signs as leave little doubt as to the relative proportions of each. It is also true, that in a cast we cannot have those physical signs—such as colour, and fineness of skin—which are presented by the individual. But colour is not the only or the chief sign of temperament: each has its own pathognomical expression; and this, inasmuch as it is irrespective of colour, we ought to find conveyed by the cast. What, then, we require, is, not a repetition of the bilious temperament, but a representation of that expression by which we discriminate the combined temperaments in nature.

Many other facts might be adduced, but I trust it is fully shewn that, for *scientific* purposes—the first element of which is certainty,—the mode of casting needs improvement. Regarded merely as illustrations to exhibit on lecture-tables, little need be said upon their defects; but when we come to predicate individual development, it is essential that the foundation of our inferences should be correct. For organs like those of Acquisitiveness and Ideality, and the powerful faculties which are located under the superciliary ridge, are too influential to permit error in judgment to be unimportant. And if to this we add the influence of the temperament in modifying character—imparting, as it often does, those delicate shades which frequently constitute the essential difference of one man's mind from another's—it becomes obvious, that to obtain a clue to temperament is to acquire a pre-requisite, without which manipulation must necessarily be imperfect. Our practical men, therefore, could not exert their abilities more beneficially for Phrenology, than by directing their attention to this subject; for, haply, means may be discovered of remedying some, or perhaps for removing all these defects.

Feb. 6. 1844.

[The subject of the foregoing communication is so important, that we have long contemplated the publication of some remarks upon it. Much of what is so well stated by Mr Hytche had forced itself on our attention ; and the difference between the sizes of originals and casts had been pointed out by Mr Prideaux in the *Zoist*, No. II. About eight years ago it was announced, that a new machine for taking casts, called the *physiognotype*, had been invented by a gentleman in Paris, and we are informed by Sir George Mackenzie that he saw it there, and found that it could be successfully applied in practice ; it does not appear, however, to have come into use in Britain. According to the published account, the machine "is of a very simple nature, and takes the exact imprint of the countenance without any disagreeable sensation, by an application of less than two seconds. It is a metallic oval plate, pierced with a large quantity of small holes very close together, and through each of which a metallic wire passes with extreme facility. The impression left is an undoubted likeness, and the mask which it produces is a *fac simile* of the mould. Nothing is wanting ; even a vein on the temple is faithfully represented." This description is imperfect ; for there are two metallic plates, inclosing between them a quantity of melted tallow, which, on cooling, fixes the wires in the positions given to them by the face. Even in casts thus made, there is, of course, the cause of error as to general size, constituted by expansion or contraction of the stucco ; and it may be, that the cooling of the tallow and wires also occasions some departure from accuracy. In the ordinary process of cast-making, incorrectness is apt to arise from imperfect joining of the edges of the different parts of the mould. Much may be done to prevent displacement of the integuments, by laying on the plaster gradually, and allowing its inferior portions to acquire some degree of consistence before applying the liquid material to higher parts of the face. We hope that some competent person will carefully make and record ample observations tending to shew *how far* casts may be relied on as accurate representations of originals—what is the best method of securing correctness—and whether those causes of inaccuracy which inhere in the nature of the material are constant and uniform in their operation. If they are not so, it is plain that no satisfactory inferences can be drawn from slight differences between casts of the same head taken at different times, and which might otherwise be held to prove a change of its size or form.

The following directions for taking plaster casts, by Mr Butler, sculptor, of Gower Place, London, are published in the *Zoist*, No V., p. 40 :—

“ In taking casts from the life every precaution is necessary to prevent the adhesion of the plaster ; for which purpose a strong lather of soap and water is employed, of a consistency similar to that used in shaving, or even stronger. With this the hair must be saturated and combed or brushed down close to the head, after which the soap and water is again applied abundantly to the smoothed surface of the hair, and sometimes, if any doubt exist of perfect security against adhesion, the lather may be applied even a third time.

“ In mixing the plaster any earthen vessel may be used : a large wash-hand basin will answer well for ordinary purposes. Let the basin be nearly filled with water, and the plaster carefully and gradually but quickly scattered in with the hand until it rise to the surface, when it may be stirred with a common iron spoon. Much care is necessary in scattering in the plaster in order to prevent the formation of lumps.

“ It will be understood that the mould must be removed from the head in sections. The simplest form of division is in two parts ; the line of separation running from the throat to the back of the head, so dividing the whole into two equal portions. For this purpose, and before the application of the plaster, a thin string is passed over the face, dividing it down the centre of the nose, and again passing over the head down to the nape of the neck. This string will be arranged before the plaster is laid on. Divide the plaster into two portions ; one of which place in any earthen vessel approaching in shape the back of the head, and sufficiently large to admit of immersion for the greater facility of applying the plaster. The person should be placed in a recumbent position, and the back of the head immersed in the vessel provided for the purpose, while the other portion is to be gently but quickly laved over the face, previously moistened with a little sweet oil. The eyebrows it will be necessary to moisten with the soap lather, as also the whiskers and the eyelashes with a little oil. The whole of the head is thus covered, the nostrils of course being left open ; it would however be advisable that novices should place quills just within the nostrils to avoid inconvenience from want of practice. The mould will be consolidated by the repeated addition of plaster, until it is of the thickness of about half an inch, when it may be divided by drawing up the string, which must be done **BEFORE** the plaster acquires too great a degree of induration ; after which the mould may be removed without difficulty.

“ The greatest care must be observed in casting the ears, in order to prevent the plaster from adhering internally or even externally. Let the whole of the crevices be well stopped

with a mixture composed of soap and oil, of about the consistency of thick paste ; and it may be well to observe to the inexperienced operator, that should any of the plaster form internally, it would be productive of at least extreme inconvenience.

“ *To take Casts from the Mould.*—Immediately after the removal of the mould, tie it together and saturate it with water by steeping it during three or four minutes ; and before the moisture has disappeared from the surface, pour in at the opening at the throat a quantity of plaster of the consistency as before, which by turning the mould round must be made to flow into every part of it. The plaster will be thus added until the cast be of the thickness of about half an inch. When this substance has been acquired, let the whole stand for a few hours, after which the mould may be removed from the cast by the careful use of a mallet and chisel.

“ *The Multiplication of Casts.*—Dry the original cast thoroughly ; then with a brush and some boiled oil go over the surface two or three times, after which the cast must stand for a day or two to allow of its drying, when it will be in a fit condition for the formation of the mould. For ordinary purposes the mould may be made in three pieces, of which the back of the head as far as the ears, but not including them, constitutes one, and the face equally divided as before affords the other two, an ear of course attaching to each. This operation is performed piecemeal. The part receiving the plaster must first be thinly coated with a mixture of oil and grease (hogslard or tallow) to prevent adhesion. When the piece is of the necessary thickness, remove it and trim the edges with a sharp knife, after which replace it on the cast, and having greased the edges proceed to the formation of another portion, which of course will adapt itself to the edge already prepared. When the mould is made, put it together, dry it perfectly, then oil it in the manner before described with reference to the cast, and in the course of two or three days it will be in a fit state for casting, taking care to coat it with oil and grease before taking each cast.”—ED.]

III. *Letter to the Members of the Royal Commission of Inquiry into the operation of the Poor Laws in Scotland, on the condition of the Insane Poor.**

MY LORDS AND GENTLEMEN,—Your labours are about to terminate, and will be followed, in all probability, by some

* This letter, which originally appeared in the *Dumfries and Galloway Herald* of 21st December 1843, is the production of a gentleman whose knowledge and experience eminently qualify him to afford information

measure calculated to secure adequate relief to the urban as well as the rural poor, to equalize the public charitable burdens, and to reach every cell and garret where poverty hides its head and dies. But before this event, so dreaded or desired, according to the opinions and position of the expectants, actually takes place, I would humbly call your attention to one helpless and miserable portion of the community, and especially of this district—the Insane Poor. Any enactment containing workhouse tests, or labour tests, may be very good, but will prove lamentably imperfect if it does not embrace a provision for the care and custody of this class. It is reported that your inquiries have been directed towards these unfortunate beings, who are citizens without rights, outcasts without crime, and children of the commonwealth, without a home or a guardian. It is even surmised that in some parts of the country your voice has awakened the justice and humanity which have slumbered for centuries, and effected a miraculous amelioration in the condition of this portion of the poor. There is no just ground for hope, however, that such a revolution will be general. The interposition of the legislature will be absolutely required to accomplish in Scotland what philanthropy has either failed, or never attempted, to do. An act of Parliament will demonstrate more clearly and cogently than divine or moralist, that it is neither wise nor humane to allow hundreds of our fellow-creatures, deprived of reason, to wander over the land uncared for ; to drag out a life of misery in darkness, and dirt, and chains, or to be degraded into domestic drudges or drones.

The object of this communication is to shew that such a step is necessary, and how necessary. The evidence shall be gathered chiefly from the state of the surrounding district ; although a count of the indictment against our good sense and prudence may be drawn from remoter scenes.

We learn from a parliamentary paper, founded upon returns made by the clergy in 1818, that, so far as could be ascertained (for some parishes supplied no information), there were then 310 lunatics in the counties of Dumfries and Wigton, and Stewartry of Kirkcudbright. Of this number, 24 were confined in public or private asylums, 88 are reported to have been with their friends, and 198 to have been *at large* ; but under what circumstances is not stated. Of these, 33 were supported entirely, 65 partly, by parishes ; and 210 were maintained by their own means, or by their relatives. The most recent statistical information upon the subject is contained in

and counsel upon the subject. We have no doubt that the disgraceful state in which the insane poor are still to be found in most parts of the country, will soon be greatly ameliorated.—ED.

an interim report of a committee of the county of Dumfries. But even this document is dated in 1831, and is founded upon imperfect returns. It affords, however, the most accessible data, and is in other respects worthy of consideration, as it was framed with the view of shewing the necessity and practicability of establishing a lunatic asylum in Dumfries, as the centre and capital of the south of Scotland. The total number of lunatics, or persons of unsound mind, in the three counties, is said to have been 333. The distribution and position of these are represented as differing but little from what has been quoted from the parliamentary paper. It is here assumed that 190 derive no benefit from public charity, while 143 are dependent, in whole or in part, upon parochial relief. Now, there is no reason to suppose that these numbers were exaggerated, or have diminished; there are, indeed, many reasons to fear that the amount of the evil was under-rated, and that the increase of the insane has been proportionally greater than that of the sane population. This is not the place to grapple with the assertion that the high pressure of our social system gives an activity to feeling and passion, which outstrips reason, and wrecks and ruins the whole mind; that civilization is but a hot-bed for the production of mental disease; and that it will become the duty of governments to provide vast hospitals adapted to the rapid and enormous increase of the insane. It is sufficient for the present purpose, that twelve years ago there were, and it is highly probable that there now are, in this region three hundred lunatics without suitable guardians; that about two hundred of these were *at large*, and mingled with their friends, their neighbours, or with the inhabitants generally; and that one-half of the whole number were public burdens.

Now, the presence of such a body of insane, and imbecile, and degraded persons, certainly tends directly to lower the healthy tone of the public mind. It will ultimately be held as an axiom, that it is unsafe and wrong to familiarize human suffering. Beggars used to expose their sores. Has charity been less gentle, less kind, less liberal, since the ulcers were healed, or modestly covered? Let the gaps, and gashes, and leprosy of the mind be likewise withdrawn from the public eye; let not maniacs be hunted and derided; let them not outrage decency. It is not a particularly instructive pursuit for our school-boys to watch or imitate the eccentricities, or to vex and worry into fury passions of the innocent of their native village. Davie Gellatly must not be taken as a type of the race. They are no longer regarded with superstitious awe or forbearance. Positive and personal terror may be, and is,

inspired ; but the solemnity, the sanctity of mental disease is obsolete, and with it much of that pious sympathy and solicitude which such a view suggested.

It is not calculated to improve morals, that half-naked maniacs should haunt our paths, with the tendencies, as well as the aspect, of satyrs. But all this takes place ; or, should perchance the scandal become intolerable, and rustic delicacy wax indignant, these unfortunate offenders are treated as a nuisance, and are ordered to be expelled or tied up. Nor are they merely the sport or prey of the passions of others. They have appetites as well as we. Unchecked, uncontrolled, they obey the injunction to multiply ; and, undoubtedly, multiply their *own kind*. They commit murder ; they commit suicide. They are apt scholars in imitating the vices and follies of their rational brethren ; while they are inaccessible to the shame, the sorrow, or the punishment ; presenting the humiliating spectacle of drunken, ribald, rebellious maniacs. Reason or religion cannot reach them, and they are abandoned to the dominion of sin. Their vices may, in fact, be said to be their best protection ; for when they violate the law, the law most wisely and kindly, but not until the outrage takes place, consigns them to the safe keeping of a jail or an asylum.

Many of these persons are under the immediate protection and supervision of their friends, fathers, husbands, children, who may be presumed to be their best, as they are their natural guardians. I deny the accuracy of the presumption. The confession is humiliating to our common nature—but it is true, and it is necessary—that mental disease is regarded by the ignorant, and by many who are not so, with loathing and abhorrence, and leads to disruption and oblivion of all the ties by which man and man, the strong and the weak, are, or ought to be, bound together. It will be found that this affliction establishes a barrier between those most intimately united by blood, or interest, or fellow-feeling ; dissolves the contract of duty, affection, and honour ; and consigns the sufferer to that exile from the immunities and advantages of his position which would contribute to comfort, and might lead to cure. Within a short period I have seen a maniac, who, bound and galled, and cut by his bonds, had been crushed and confined in a small hole beneath a stair ; where, although deprived of every means to inflict injury, and dependent on those who had shorn him of his former powers and privileges, he was shunned by his relatives, as the plague-stricken were formerly shunned. I know that at this moment there are lunatics immured in cellars, closets, lofts ; that they are allowed to wander nearly nude in the pitiless storm ; that a female, who had exhibited

much vacillation of purpose and lethargy, was locked up for nine months in a garret, and deserted by those who had slept in the same cradle; whose bed was unchanged for weeks; whose food was pushed within her reach by a menial.

But to turn to the experience of a medical man, in a country town somewhat smaller than Dumfries. The facts were collected in 1840, and serve to illustrate many of the evils which result from the absence of a proper provision for the Insane Poor:—

1. Two respectable tradesmen, whose only crime is insanity, are confined in S—— jail, among felons of the worst description.

2. A woman, still very young, has become completely paralytic in her limbs, from having been heavily ironed by her parents during a period of at least ten years.

3. A young man, of great muscular strength, is allowed to run about the streets, to the great danger of the inhabitants.

4. Another powerful young man, but partially disabled by the loss of a limb, is also allowed to go at large, and often assaults women and children.

5. A woman, the mother of a family, after suffering every privation, and very great cruelty, by personal violence from her husband, has at length been sent, by private charity, to an Asylum in G——.

6. A young man has been confined in a room, without furniture, for a period of ten years.

7. A woman, the mother of a family, is allowed to run over the country, in a state of utter destitution, and often appears in the streets in a state of nudity.

8. A man, at least 70 years of age, had been chained to his bed for a large portion of that time; and his daughter, a woman about 45, who has been insane for three years, goes at large, quite unprotected.

9. A woman has been confined in a room for 15 or 20 years; and during all this time her cries, depending upon hunger it is said, have been so loud as to prove painful and offensive to persons passing along the street.

In none of these cases, was there, perhaps, actual gratuitous inhumanity, or indifference to suffering; but there was gross culpable misapprehension of the nature of the beings still claiming protection, if not entitled to companionship; there was pusillanimity, and that cold scepticism of the influence of kindness and care, which arrest every endeavour to alleviate or remove mental disease.

But let it be supposed that the relatives of the insane poor, the masters with whom they are bound, the householders with

whom they are boarded, were really the most humane and enlightened guardians that could be selected, and let it be inquired, Is the system a cheap one? It is a most expensive economy. If of every hundred cases of insanity, thirty-five, at a low computation, be curable under proper management, it is quite obvious that every effort to obtain the removal of the disease, is not limited to the benevolent act of restoring reason to the individual, but extends to the relief of the country from a positive and permanent burden. If the disease be left undisturbed in a hundred pauper lunatics, there is almost a certainty that nine-tenths of them become chargeable for life as "impotent poor;" whereas if the recognised and approved medical and moral expedients be resorted to, there is almost a certainty that one-third of them will recover, and be able to support themselves. If a parish, or parishes, maintain 21 furious or fatuous persons under the existing law, that number would be reduced to 7 by the means now advocated. If the cost now is L.210, it would be diminished to one-third. It is perhaps true that the lunatic poor may be farmed out, may be boarded with their kindred, or kenneled with a keeper, for a smaller sum than what is demanded in a well appointed hospital. But, first, were large public asylums erected, say for 500 inmates, the rate of board could safely be made less than what is now exacted; secondly, the labour done by many of the lunatics so hired out, and which, in fact, pays part of their board, might be rendered available, to a certain extent, in lessening the expense of maintenance; and, thirdly, money paid, as it is now paid, is thrown away: it is a premium on the continuance of the disease; it is *not* expended upon the lunatic.

In whatever way, my Lords and Gentlemen, pauperism may be dealt with, from whatever source funds may be raised, by whatever machinery distributed, it is quite obvious and incumbent that these lunatic poor who are described as "*at large*," should be housed, fed, treated; removed from contamination and oppression; and placed in the most favourable circumstances for the improvement or recovery of those faculties which would give them the wish and the power to become independent. In the epidemic St Vitus' dance after novelty, the craving for new constitutions and organic changes, every man has his plan and panacea to patch up and renew some particular limb of our body politic. I have mine.

As if in illustration of the extent and efficacy of voluntary charity, suggested although the movement undoubtedly was by the *neglected* condition of its objects, Scotland is already provided with seven large institutions for the insane, all ad-

mitting paupers, constructed upon approved principles, and conducted in a creditable manner, but incapable of containing the patients for whom admission is actually demanded, and altogether inadequate to receive those who should be isolated, and who must be so under any change of law. The Perth Asylum and the Crichton Institution, built with the funds of private individuals, are full. Montrose Asylum, chiefly the fruit of the beneficence of one lady, is overflowing, and adding to its accommodation. Aberdeen Asylum, originally erected by public subscription, but subsequently enlarged by means of a private bequest, is crowded. The Asylums in Edinburgh and Glasgow, built by public subscription within the last two years, have nearly their complement; and that in Dundee is in the same predicament. And yet there must be several hundred persons of unsound mind roaming at large, for whom there is no refuge—no receptacle. My recommendation is, that if asylums require to be established for these wanderers, they should be connected with those noble establishments. Let them be separate buildings; let the governors be chosen according to distinct regulations, from different classes of the community; let the funds be managed by different officers; but let the executive staff be the same. There is, however, fortunately, no necessity for so complete a segregation. All the institutions enumerated receive paupers; and are most humanely disposed to admit greater numbers, if accommodation could be provided without any infraction of their charter. If a separate building be necessary, it will, or may, be regarded as an extension of the original plan. In the great majority of cases the very men who now act as governors of the existing asylums would, under any modification of a Poor-Law adapted to Scotland, be the guardians of the Insane Poor. And granting that these difficulties, and many others which may occur, were removed; granting that an equitable and amicable arrangement had been entered into, whereby houses for pauper lunatics were built with the poor's funds, in connection with the present establishments, the advantages to the country and to the public purse would be as follows:—1. The expense of a site would be saved. 2. In most cases, the expense of ground for gardening, farming, &c., would likewise be saved. 3. The expense of medical attendance, and of the whole domestic staff, would be altogether or nearly saved. 4. The poor would be secured the best professional assistance—the services of men who have devoted their lives to the investigation of mental disease, and whose very position is a guarantee of eminence or respectability.

Such, my Lords and Gentlemen, are the statements which

I would have had the honour to submit to your consideration, had you called before you so obscure a pioneer of improvement, as your very obedient and humble servant,

A. B. C.

DUMFRIES, 2d December 1843.

IV. *Letter from Mr Simpson on Hypnotism, and Mr Braid's Theory of Phreno-Mesmeric Manifestations.*

TO THE EDITOR OF THE PHRENOLOGICAL JOURNAL.

DEAR SIR,—Happening to be in Manchester in March last, I had the pleasure of forming the acquaintance of Mr James Braid, an eminent surgeon there ; who, as is well known to mesmerists and phreno-mesmerists, has gained no inconsiderable celebrity by certain discoveries, alleged to have been made by him, of the nature and cause of the mesmeric sleep, and published, with his proofs, in a small volume, entitled, *Neurypnology, or the Rationale of Nervous Sleep* [called also by him Hypnotism], *considered in relation with Animal Magnetism, and illustrated by numerous Cases of its successful application in the Relief and Cure of Disease.* As I had read, with great interest, Mr Braid's work, and the summary of his views in your Number of January last, I considered myself fortunate in obtaining personal communication with him.

I have to acknowledge much courtesy and attention received from Mr Braid, and the greatest assiduity on his part, in introducing me to his most instructive cases, and candidly and clearly submitting to me the proofs of his theory.

Mr Braid holds that there is at least analogy, if not identity, between the mesmeric sleep as induced by others, and the hypnotic sleep, as he certainly more philosophically calls it, as induced by himself.* This sleep, he alleges, is the result of an ex-

* In his *Neurypnology*, p. 21. Mr Braid says:—"For a considerable time I was of opinion that the phenomena induced by my mode of operating and that of mesmerisers were identical ; and, so far as I have yet personally seen, I still consider the condition of the nervous system induced by both modes to be at least analogous. . . . However, from what the mesmerisers state as to effects which they can produce in certain cases, there seem to be differences sufficient to warrant the conclusion that they ought to be considered as distinct agencies." These effects, which he has never been able to produce by his mode, he states to be, "such as, telling the time on a watch held behind the head, or placed on the pit of the stomach ; reading closed letters, or a shut book ; perceiving what is doing miles off ; having the power of perceiving the nature and cure of the diseases of others, although uneducated in medical science ; mesmerising patients at miles' distance, without the knowledge or belief in the patient that any such operation is intended." It

hausted irritability in the motor nerves, and fatigue in the muscles, of the eyes ; in which condition the eyes close. Nothing more is required than that the patient shall stare steadily

appears from a paper lately read by Mr Braid at the Royal Institution in Manchester (quoted in a subsequent part of this article), that he has not yet seen reason to believe in the reality of any such feats as these. "There ought, in my opinion," said he, "to be far stronger evidence, and a more extensive series of experiments, and those subjected to more searching scrutiny than hitherto, before being received as facts ; for to me it appears far more probable that the narrators have been deceived than that the Almighty would ever delegate to man such dangerous prerogatives and powers—powers which are quite inconsistent with the security and harmony of society in the present state of our existence." He referred, in support of this opinion, to the small number of satisfactory cases which had been met with of the kind, compared with the length of time over which they were spread, and the number of the investigators. "Then, again," he observed, "there is the acknowledged uncertainty of even the most clairvoyant patients, for in general they are oftener wrong than right ; whereas answers from true perception ought always to be right. Nor should we overlook the fact that most of their answers are given in very vague language, which may admit of very different interpretations. Moreover, in every case of supposed clairvoyance which I have had an opportunity of investigating closely, I have been enabled to convince the parties that they had been deceived, and that the whole was explainable on principles which I shall immediately point out, and a want of the knowledge of which I believe has been the chief source of error in those inquiries. Until cases are investigated with due attention to these sources of fallacy, no implicit confidence should be given to the results recorded. For example, General Green of Philadelphia, a man of great talents and observation, honoured me with a call last summer. He believed his daughter highly clairvoyant, and she was represented as such by her mesmeriser ; but I very soon convinced him they had been mistaken. In like manner, the satisfaction of many with the late case of the boy Cooke, at Deptford, who was represented as highly clairvoyant, all arose from their ignorance of the sources of error I am about to explain, as a letter from the boy's master, compared with my paper in the *Medical Times* of 13th January last, clearly proves. In another case, published in the *Phreno-Magnet*, I wrote to the operator, requesting him to repeat the experiment, *with certain precautions I had suggested*, and offered L.5 as a reward to his patient if successful, or to the patient of any of his mesmeric friends who had met with such marvels ; but although it was offered—not as a bet, involving risk to them, but as a reward—and I offered them any number of trials, if the first proved unsuccessful ; while five months have elapsed, still the money has not been demanded." He also appealed to a late investigation, made with precautions he had referred to, which had proved one of the most noted cases of clairvoyance to be a complete delusion. He said—"Amongst the sources of error which should be kept in view whilst investigating the subject of clairvoyance, community of feeling, and mesmeric intuition—the remarks apply equally to hypnotism as mesmerism—the following are the most important :—The extreme exaltation of function, at a certain stage, of the organs of special sense, which enables them to perceive, through the ordinary media, impressions so faint that they could not be perceived in the waking condition ; second, the extreme docility and sympathy, which gives a tendency to imitate the actions of

at an object, animate or inanimate,—the better if a short way above the head,—till the exhaustion takes place. It is conditioned that the patient shall concentrate his thoughts on the fixed object, and yield himself implicitly to the operation. The nervous system is thrown into a new condition ; and if the arms and legs be raised, the pulse speedily becomes greatly accelerated, and the limbs, in a short time, will become quite rigid and involuntarily fixed. It is also found that all the organs of special sense, except sight, but including heat and cold, and muscular motion or resistance, are, *at first*, much exalted, and have extreme sensibility. After a certain period, this exaltation of function is followed by a state of depression, far greater than the torpor of natural sleep. From this state of torpor of the senses and rigidity of the muscles, the patient may be *instantly* brought back to the state of exalted sensibility, and of extreme mobility of muscle, by *a current of air* directed against the organ or organs wished to be recalled to action. By mere repose this effect will in time take place. Mr Braid was long puzzled to explain this effect of a current of air : a theory has recently occurred to him, which I shall presently notice.

I witnessed the results, now briefly described, but more fully in Mr Braid's work and article above alluded to,* in a number of Mr Braid's patients of both sexes, and had no doubt whatever of their reality. Several of the patients were requested by him to throw *themselves* into the hypnotic state, without any operation of his ; which they did by gazing steadily for a very few seconds upon a fixed object. Nay, more, if the object gazed at was another patient's eyes, the two persons could hypnotise each other. This, also, I saw done repeatedly. From this reciprocal result, and likewise from the phenomenon of self-hypnotism, Mr Braid concludes, as he appears entitled to do, that the nervous sleep of his patients, whatever be its nature, is not produced by any influence, magnetic or other, passing from one person to another. This is an immense point gained, if gained it be ; for at one step it gets beyond

others ; third, the extraordinary revivification of memory at a certain stage of the sleep, which enables them to remember things long forgotten in the waking condition ; fourth, the remarkable effect of contact or touch in arousing memory ; fifth, the remarkable condition of double consciousness, or double personality ; sixth, the vivid state of the imagination, which instantly invests every idea suggested, or remembrance of past impressions, with the attributes of present realities." On these, and other grounds in the sequel, I should humbly hold that the states are identical, not merely analagous.

* See also his papers in the *Medical Times* of 6th and 13th January, and 13th and 20th April, 1844.

the mystery and magic of Mesmerism, and finishes "Animal Magnetism."

Mr Braid informed me—indeed, has stated in his work—that he has entirely *separated* Hypnotism from Animal Magnetism. By this I understood him to mean, that he investigates the former by its own facts, and independently of the controversy on the subject of Mesmerism. He does not, however, say that the mesmeric and hypnotic states are essentially and intrinsically different, and does not hold that they are. The effects, as witnessed by me, left me without a doubt that they are one and the same, only that Hypnotism is the more brief, and decidedly the more certain, method of producing what has been called the mesmeric sleep. The discovery of the cause, at least the *commencement*, of the hypnotic state, in the affection of the motor nerves and muscles of the eyes,—which may come to be classed with those brilliant feats of science, which, in a moment, unlock a store of Nature's secrets, and give an immense onward move to human knowledge—this observation is Mr Braid's own, safe from either envy or dishonesty, whatever may be its consequential value.

It was during a mesmeric experiment conducted by M. Lafontaine—to which, in his then incredulity and disdain, he was almost dragged by a friend—that this idea occurred to Mr Braid. The steady fixation of the patient's eyes suggested it; and that fixation, which was believed to be for the reception of an influence from the eyes of the mesmeriser, but which is followed by the same effect when the object is something inanimate, not even *held* by another person, the very mode and occasion of the discovery are, to my mind, a proof that, by and through M. Lafontaine's patient's fixed gaze, and not by any influence passing from M. Lafontaine, the said patient was *hypnotised* in Mr Braid's sense, not *mesmerised* in M. Lafontaine's; the actual state being, however, the same in both senses.

Mr Braid exhibited a number of his cases to me both in Manchester and its neighbourhood, and left me convinced of the identity of the mesmeric and hypnotic states. The new consciousness, to be forgotten on waking up,—the cataleptic state of the limbs—the insensibility to pain—and the obedience of the faculties of the patient to the impressions made upon them by the operator, were, as far as I could judge, the same in the hypnotised as in the mesmerised patient. I saw no case of clairvoyance, introvision, or reading with the eyes bandaged, in Mr Braid's hands. He himself is incredulous as to the reality, at least the alleged nature, of these phenomena; and some others, especially introvision, as it is called,

he imputes to the exalted sensibility of the sense of smell. I saw a boy in the hypnotic state restore to several persons, in a crowded room, each their own glove, which he previously applied to his nose. He followed me, like a questing hound, till he found me in a corner, and presented my glove. Mr Braid shewed me some instances of the increased sensibility of the sense of hearing, in which the slightest whisper was heard and answered at the distance of a large room. The effects, too, of the currents of air were very striking; the perception of them seemed most acute; and he thinks that the passes and attractions of the mesmerists owe their effect to modifying the air in contact with the body of the patient, and producing a stream or current.

The same boy who, in a large party, restored my glove by its odour, walked through and through the company and furniture, even the footstools, without touching any object whatever; from extreme sensibility, as Mr Braid thought, to the state of the air around his body. The blind are believed to acquire some degree of the same power. This sensibility to the most evanescent impressions on certain senses, accounts, on natural laws, in Mr Braid's opinion, for much of the mysterious influence of the mesmerists. To verify this opinion, which seems very reasonable, would require a more extended and minute course of observation than my short visit permitted me to make.

Mr Braid, I observed above, has ventured a *rationale* of the current of air. This he did in a paper read by him a few weeks ago, with great effect, to a meeting of some of the most scientific men of Manchester, in the theatre of the Royal Institution, and reported in the *Manchester Times*, and also, less fully, in the *Medical Times* of 18th May. The theory is ingenious, and I am happy to give it a place in my letter.

"At one stage of Hypnotism there is a great exaltation of the functions of all the organs of sense, sight excepted, and at another all these may be reduced to a state of *extreme torpor*. During the latter condition, a simple waft of wind may restore any part from the *extreme of torpor* to the *highest state of excitation*. Thus the arm may be extended, and in process of time the muscular activity shall have reduced the limb to that state of rigidity called the cataleptic state; so that it is not only held up as it were involuntarily, but will offer prodigious resistance before it can be depressed; nay, may actually be so unyielding that it could not be flexed without the application of such force as might endanger the integrity of the tissues. The arm shall also be insensible to pricking or pinching; but the moment a waft of wind is directed against

it, the rigidity ceases, down drops the arm, and the skin is instantly highly sensitive to the slightest infliction. This extraordinary influence of a current of air puzzled and perplexed me exceedingly. I solicited information on the point from all quarters, but no one hazarded an explanation of the cause of the phenomenon. However, I have very lately arrived at what I believe to be the true *rationale* of the matter; which is this. I have already explained that it is the peculiar feature of Hypnotism for the *whole* energy of the *vis nervosa* to be concentrated on the function in action, so that exciting another function is equivalent to suspending the one previously in action. Now, by elevating the arm, the *attention* is directed and concentrated on *muscular effort*, the tone of the muscles increases till a state of cataleptiform rigidity is induced, the pressure of the rigid muscles on the arteries and nerves interrupts the free circulation in the member; but while the sensation to pricking and pinching diminishes, that of heat and cold, if it does not increase, at least diminishes less rapidly. Again, by pressure applied to the arm or hand, you offer resistance to the rigid muscles of the arm and shoulder, *and thus you stimulate them to still greater activity*; but a waft of wind acts on the sense of heat and cold, which is a function of the skin; and as only one function is energetically active at the same time during Hypnotism, directing the attention to the *skin* is equivalent to *suspending that of muscular action*, and, consequently, *down drops the arm from its own gravity*. This is quite analogous to what happens when a person drops anything from his hand *by being suddenly startled*. The same explanation accounts for the effects of a waft of wind against any of the dormant organs of sense, the attention being thereby directed to the function of the organs acted upon. It is never to be overlooked that at this stage of the sleep the acts are voluntary acts, although unremembered by the subjects when awake; and that they are regulated in their actions by the ordinary laws of sensation and association of ideas, as in the waking condition, with this difference, that the quickness of their perceptions, and tendency to concentrate their attention entirely to individual acts, instead of the more diffusive tendency of the waking condition, give an energy and promptness to their actions almost equal to the force of instinct which we observe in the lower animals. When, however, the patient has been allowed to lapse into the deep stage, when the sense of heat and cold, as well as sensibility to pricking and pinching, is gone, these transitions are effected with much more difficulty. The patient then requires continued wafting for a considerable time, more particularly over the

face. The rigidity only yields gradually. Without especial attention being given to the *opposite* conditions and phenomena at the different stages of Hypnotism, it is impossible for any one to test the subject correctly, or to comprehend what he really witnesses."

Having thus briefly described what I saw of the hypnotic state itself, I beg now to add what I shall call, for distinction, the phreno-hypnotic phenomena which I witnessed ; in other words, the excitement of mental manifestations by the operator. In this field Mr Braid has made another discovery, quite as striking as that of tracing the commencement, if not the cause, of the hypnotic sleep to the motor nerves and muscles of the eyes. He has observed that, in the exalted hypnotic sleep, certain of the mental faculties can be called into manifestation, by touching, or, as he calls it, titillating, *other* parts of the body besides the head. Founding on the known fact that the trunk and limbs, as well as the face, pathognomically express the various feelings, Mr Braid thought that the operation might be reversed, and the emotions be excited by stimulating the parts of the body which appear to respond to them ; in other words, that, as the cord must have two ends, one in the brain and the other in the corporeal muscles,—the foundation of what Sir Charles Bell calls the anatomy of expression,—stimulus applied to either end would produce the same effect. That I may not mistake Mr Braid's views, I will again quote from his recent essay, which, of course, sets forth his latest and most matured experience.

" 'The idea occurred to me, that, by titillating certain combinations of nerves, and thus exciting into activity certain combination of muscles, by a sort of inversion of the ordinary sequence, we might thus, through muscular action, suggest to the mind the idea which ordinarily preceded and excited the muscular action. This, then, would be a mere inversion of the ordinary sequence, the attitude and muscular expression of our *own* body suggesting the idea to our *own* minds, just as the effect is produced through the eyes by looking at any one pantomimically expressing any given passion or emotion. It is long since it was observed, that any one, in the waking state, while assuming and endeavouring to maintain the attitude of expression of any passion or emotion, will soon experience a corresponding condition of mind engendered thereby. By a series of experiments, this theoretical view seems to be borne out ; as I have found that stimulating into activity any class of muscles, either in the *head*, trunk, or extremities, speedily engenders the ideas with which they are ordinarily associated in the waking condition. Thus, putting a pen or pencil into the

hand excites the desire to write or draw ; moving the fingers or hand, as if sewing, gives the idea of sewing ; approximating the palms of the hand gives the idea of devotion ; clenching the fist, the idea of fighting ; stimulating the muscles of the back, pride and firmness ; and so on. This, however, is best illustrated by experiment, and I shall now proceed to do so, and have no doubt of enabling you readily to comprehend the subject in this way, in the course of a few minutes.'

" Mr Braid having now finished his paper, stated that an experiment would illustrate the matter so much more readily, that he should, no doubt, make his views on the latter part of his subject be comprehended in a few minutes. He then directed a young lady, who was present for the purpose, to hypnotise herself ; which she did very readily, by holding up and looking at one finger. It was necessary to explain, he said, that, at a certain stage of sensation, the muscles subjacent to any point titillated instantly had a tendency to contract, or any point touched the patient had a tendency to lean against ; and the tendency to self-balancing, so remarkable in somnambulic patients, called into action certain associated combinations of muscles ; and that this action created the idea in the mind of the patient. He then commenced his experiments. On his touching the muscles of the back, the patient rose and assumed an air of self-importance. The hands having approached each other (apparently accidentally), the position of them seemed to have given the patient the idea of devotion, and she slowly and gracefully sank upon her knees. — Though this was not intended, it seemed to give much satisfaction, as illustrating the impression Mr Braid had been seeking to convey in his paper. The muscles of the interior of the arm being touched, caused a clasping of the hands, and the patient seized hold of the operator's handkerchief : the back of the arm being touched, an opposite tendency was displayed, and the patient seemed disposed to restore. A point in the interior of the shoulder being touched, which naturally caused the patient to elevate the arm and bring it forwards, she immediately evinced a disposition to lean against the operator. Touching the posterior and top parts of the shoulder on the opposite or left side of the patient, she opened her hand, evincing a disposition, on that side, to guard the operator from some imaginary assailant. The opposite feelings thus brought into action by touching different muscles, Mr Braid said, had not their origin in a wish to be friendly merely ; and in proof of this, he placed the patient on the other side of him, when she leaned with her right arm against the chairman, clasping his arm, and when Mr Braid approached her on the other side, she struck at him.

The points of contact were reversed, and the patient clasped the operator, and evinced a disposition to use the opposite arm in defending him against the chairman. A touch on the middle of the chest, caused a stooping tendency in the patient, a distressed state of the respiration, and a strong emotion of compassion; and the patient laid hold of some of her own clothes, as if to give them to some distressed object. The next point of contact was behind the shoulders, and the patient's feelings seemed instantly reversed; a feeling of selfishness seemed to be predominant, accompanied with manifestations of great self-consequence. Various points of the head were touched, and the operator's finger being placed at the top of the head, the patient assumed an appearance of great firmness. A part of the head a little more backward being touched, the patient's head was thrown more backwards, and the countenance displayed the appearance of great self-importance. Points more laterally situated being touched, vanity and self-admiration were manifested. On a point of the head a little anterior to the centre being touched, the patient sank down on her knees in a solemn devotional manner; and combining this touch with one a little more laterally, a more animated appearance was given to the countenance, and the patient unclasped her hands and tossed them about, as in an animated state of devotion. The first point of contact being combined with one more laterally situated, an appearance of extreme ecstasy was produced. After exhibiting many others of these phenomena, which seemed to bear out very fully, and to the satisfaction of the audience, the theory which he had propounded, Mr Braid remarked, that he considered no experiments which had yet been made of this kind had either proved or disproved the doctrine of Phrenology, which had as yet been left in much the same state as it was found by them."

I can bear testimony to the truth of the above results; for I saw the stimulants tried, not on one, but on several subjects of both sexes. I was allowed to try the experiment myself, and received blows or caresses, as I stimulated the outside or the inside of the arms; nay, was encircled adhesively with one arm, which I had touched on the inside, while the other, touched on the outside, struck out at any one near on that side; and, on changing my place with another person, that person was caressed and I most impartially beaten. This singular proof of the *duplicity* of all the organs and functions of the muscular frame, as well as of the brain, has been observed by others; especially by Dr Elliotson, in one of whose patients I saw it realized by the most distinct antagonist-action, as in Mr Braid's subjects. I would here remark, that what I saw was

confined to effects or results. I did not see the *cause* of these responses ; and must not forget to say, that, in imputing them to association of certain ideas or feelings with certain muscular movements, Mr Braid has only assumed, not proved, the *modus operandi*. The anatomy of expression, which he adopts, is more tangible than association ; and that is certainly by nervous communication.

With one conclusion to which Mr Braid comes, I cannot, after the most careful consideration, agree ; namely that Hypnotism, or, what is the same thing, Mesmerism, has done nothing in the way of confirming the organology of Phrenology. I cannot part with so direct and powerful an aid to the science, so slightly, I would almost say indifferently, as Mr Braid has done in the last five lines of the extract above quoted. My difference from Mr Braid is on the following grounds :—

First, All the feelings whose manifestations he called forth by muscular titillation, were those which Phrenology has distinguished as primitive by the size of the organs in the brain. I saw Self-Esteem, Veneration, Benevolence, Adhesiveness, Combativeness, Destructiveness, Secretiveness, and Acquisitiveness, successively, in marked manifestation under the muscular process.

Secondly, The same faculties were brought out by touching the head over their recognised organs in the brain, and, as I can bear witness, considerably more unequivocally and distinctively.

Thirdly, I cannot see why the fact that the manifestations instantly obey the direct touch over their organs in the brain should in the least be weakened, because, inversely, the brain may be excited by touching the muscles of expression. Mr Braid does not aver that the muscles are the *seats* of the emotions. The brain must be concerned even in this reverse indirect appeal to it. If so, what has Mr Braid done, but most ingeniously confirmed the *pathognomy* of Phrenology ;—discovered muscular regions which respond pathognomically to the organs of the brain, and to which, on his own shewing, the *brain* responds ? Has he not thus materially added to the proofs of Phrenology, instead of merely leaving them as they were ?

Fourthly, Not only were the responses, to my observation, more precise, when the head was touched in the situations of the cerebral organs of the eight feelings enumerated, but these eight were apparently all the feelings that Mr Braid could excite muscularly. Others, however, were called forth when their organs in the brain were touched, and invariably in the recognised localities. For example, the repulsiveness of Self-

esteem was roused by touching the back on the spine, immediately below the shoulder-blades; and the feeling was also excited by touching the situation of its recognised organ in the head. But the coquettish manner of Love of Approbation could by no muscular touch that was tried be called forth; yet it instantly appeared when the organ on each side of Self-esteem in the head was appealed to. In one lady's case, I secretly concerted with Mr Braid, that, when I said "centre," he should touch Self-esteem, and "sides," Love of Approbation, both on the head. This we alternated a dozen of times, with the most amusing change, from hauteur to vanity, that a phrenologist could have wished to see. Tune, Time, Colour, Ideality, Caution, were not called forth by the muscular, but could be by the cerebral appeal. Now, even supposing that precise localities in the muscular frame shall in process of time be discovered, to the stimulating of which each and all of these feelings shall respond, still, as the feelings ultimately vibrate in the brain, where this takes place must be in the very localities ascertained by Phrenology, seeing that at *that* end of the cord, so to speak, the response is unequivocal; each kind of response being limited to the bounds of its own previously ascertained organ.

To my mind, the organology of Phrenology receives much confirmation, if by touching over the previously observed organs the manifestations are brought out; although it may be also true that the same manifestations can be brought out by touching other parts of the body. We do not question the localization of its proper propensity in the cerebellum, because its specific feeling can be excited in other localities. Neither is the evidence weakened by the fact, of which I saw several proofs in Mr Braid's hands, that the ideas conveyed *in words* will rouse the feelings to a very great degree in the different organs. We know that this is true in the waking state; hence the danger of corrupting books or conversation. I saw different feelings—always, be it marked, the primitive faculties of Phrenology—called forth in Mr Braid's subjects, who were, beyond all doubt, deeply hypnotic at the time. When he whistled a waltz, a lady in the sleep began to move in waltz measure with uncommon grace; when he sung, she sung; and, stimulated *by his words*, she made a fierce attack upon me to rob me, attempting to plunder my pockets, and possessing herself of something belonging to me—which, by an appeal, still in words, to her Conscientiousness and Shame, she was made to restore, with a flood of tears. I shall never forget that lady; she was in a superior rank in life, residing some miles out of Manchester; and I was introduced to her and her family by

Mr Braid, who paid her a non-professional visit, in the hope that she would consent to be hypnotised for my gratification. She most cheerfully and obligingly complied. Naturally a beautiful and elegant young woman, her movements and attitudes, in the exaltation of the hypnotic sleep, exceeded, in gracefulness and expressive power, anything I ever witnessed in the most accomplished displays of the stage. I was before aware, for I had seen several instances in Edinburgh and London, and one in Mr Braid's own hands, that very ordinary looking persons can be rendered beautiful, and always graceful, in the nervous sleep,—proving how much beauty depends upon expression; but the case now described presented a series of studies for the sculptor, painter, or actor, of the most exquisite kind. This young lady expressed no feeling that is not recognised by Phrenology, whether excited by touching the organs on the head, or the muscles, or by calling up the ideas by words; and when precision in manifestation was wanted, recourse was always had to the brain direct. One example I recal. As she joined her palms and sank gracefully on her knees, in answer to the muscular appeal to Veneration immediately under the breast-bone or sternum, the ingredient of rapturous ecstasy was added to her expression,—and how? by touching the organs of Hope, Ideality, and Wonder, on the head. The attitude and expression became heavenly. In an instant, a touch on the spine roused her from her knees, and changed her whole demeanour to a strut of proud defiance. Another was given to the organ of Love of Approbation, *on the head*, when she bowed and moved her hands from side to side with an air of coquetry, with “nods, and becks, and wreathed smiles,” from which the greatest adept in genteel comedy might have taken a lesson. The waltz easily followed when music was given her, and her dancing movements were perfect.

One observation made by Mr Braid, if true, would, I freely admit, upset all my above arguments for Phreno-Hypnotism, namely, that, in the third or rigid and torpid stage of Hypnotism, the manifestations are reversed—the lower organs bringing out the higher manifestations, and *vice versa*. This is vastly too important to be lightly averred. We must see a hundred unequivocal instances of it, before we can subscribe to it. Now, I did not see one; and when it is recollected that the third stage is the stage of torpor, I should rather expect that *no* manifestations can be brought out in that stage at all. Nothing perplexed me more than this thesis of Mr Braid's, and I am not sure that I understand it yet. Experiments, “*decies, deciesque, repetita*,” are called for on this by far the boldest of Mr Braid's propositions, and the greatest of his discoveries, if

discovered it shall be, which, with great deference to him, I cannot imagine it ever will. On his own theory of suggesting ideas or feelings by stimulating certain muscles, the notion of inversion seems an absolute inconsistency.

I have to repeat my great obligations to Mr Braid for much pleasure, and no small instruction. I witnessed some gratifying applications of Hypnotism to disease, saw marked improvement, and conversed with several cured patients, who described to me their interesting experience. But into that branch of the subject, as not suited for your Journal, I will not enter.—I am, yours, &c.,

JAMES SIMPSON.

NORTHUMBERLAND STREET, EDINBURGH,
1st June 1844.

V. *Juvenile Delinquency—Prevention of Crime.**

We have been favoured with a copy of a paper drawn up by Mr Brebner, Superintendent of County of Lanark Prisons, and Mr H. Miller, Superintendent of Police in this city [now in Liverpool], relative to the propriety of establishing Houses of Refuge for juvenile offenders. It is intended for the consideration of the Lord Advocate, and contains a variety of valuable observations and suggestions on the important subjects of which it treats. The evils of the existing system may be briefly enumerated as follows:—1st, the impossibility, in the present crowded state of our prisons, of classifying the prisoners with a due regard to their degrees of guilt, and with the view of preventing the comparatively innocent from being brought into contact with the more hardened class of offenders; 2dly, the difficulty of dealing with juvenile offenders confined for a first offence, so as to avoid the evils which are found to arise from short committals, without subjecting them to terms of imprisonment disproportioned to their offences; and, 3dly, the want of a proper system of disposing of liberated offenders, so as to prevent them from returning to the haunts of crime from which they have been temporarily rescued. Messrs Brebner and Miller allude to the startling fact that there are many persons in Glasgow “who have been imprisoned from twenty to fifty times for minor offences, who have only been set at liberty to return to their old courses, and to contaminate society by their pernicious conduct, without having them-

* This article is extracted from the *Glasgow Citizen*, a newspaper conducted with much care, good sense, and correct taste, and in which particular attention is bestowed on the means of social improvement. The article originally appeared on 27th January last.—ED.

selves profited in any way, or been reformed, by the punishment they have undergone." One woman is mentioned who has actually been seventy-five times in prison for drunkenness and disorderly conduct! The advantages which would result from Houses of Refuge, properly regulated, and affording sufficient accommodation, are thus enumerated :—

" Houses of Refuge for juvenile offenders, if established and supported to a proper extent, would be found not merely to ease the prisons of their present load, but, in a short time, to diminish, visibly, the number of offenders. Nothing can shew this more strongly than the fact, that at this moment there could easily be collected, in this city, upwards of 1000 juveniles of both sexes, who are either known to the police as thieves, and the associates of thieves, or who, from the abandoned habits of their parents or guardians, or perhaps having no guardians at all, are likely to become thieves. It is lamentable to think that while such pains are taken to reform hardened offenders, by teaching them trades which may enable them to earn an honest livelihood when set at liberty, and at the same time to give them the benefit of a sound moral education, such feeble efforts should be made to prevent young persons from going astray, and swelling the ranks of those (in most cases) hardened offenders, with whom our prisons are at present crowded. There are at present in this city two Houses of Refuge—one for males, and the other for females—capable of accommodating about 500 persons; but, from want of funds—the authorized assessment for their support being totally inadequate—there are only about 250 inmates of both sexes in these institutions. It will thus be seen, that even although these institutions were in full operation, there would still be many hundreds of young persons left to mix with their vicious and abandoned companions—gradually becoming more and more hardened, until they become adepts in crime, and are got rid of by imprisonment or transportation. There can be no doubt that this is the root of the evil; and that by providing sufficient accommodation for such persons in Houses of Refuge—authorizing magistrates to send them to these institutions, either with or without their own consent—and weeding society of old and hardened offenders, who are beyond all hope of reformation—and by adopting transportation instead of the present system of re-committal for long periods, the amount of crime in this country would very soon be diminished.

" It frequently occurs that juvenile thieves are tried in the Police-court for the theft of some articles of very trifling value

—such as provisions, weights from shop-counters, &c., &c.; and although found guilty, are, in consequence of the impossibility of getting them into a House of Refuge, and on account of their extreme youth (some of them being not more than nine or ten years of age), handed over to their parents, although the latter in many cases are very improper guardians, on account of their own bad habits. The magistrates are frequently at a loss how to dispose of such cases, it being quite obvious that a short period of imprisonment would be of no avail, but, on the contrary, would be positively injurious.

“The expense of maintaining, or the benefits to be derived from, such institutions, should not be confined to particular localities; for the evil being a national one, so also should be the remedy. A sufficient number of Houses of Refuge should be established in different parts of the country, and the funds necessary for their support raised in the same manner as the prison assessments, in virtue of an act of Parliament; for, from the experiments already made, it is very apparent that no local assessments will ever be sufficient to carry out the principle to an extent that will be generally beneficial. The management of these institutions might be most advantageously placed in the hands of the General Board of Directors of Prisons; and it is believed that no system of prison discipline, however good in itself, will be of avail, unless Houses of Refuge are employed as auxiliaries in the manner already mentioned.”

These suggestions, coming as they do from men practically engaged in the administration of criminal justice, appear to us to merit the deepest consideration. With regard to the disposal of liberated offenders, Messrs Brebner and Miller throw out the following hints:—

“Means should be provided for giving employment to such persons at a distance from their old associates, and the scene of their downfall and disgrace, when they express any desire to be employed, or to live by their own labour; and even to assist them in emigrating to the Colonies, and entering the mercantile marine service, &c. When they decline taking the benefit of this provision, and insist on returning to their former haunts, little good can be expected of them; and the police of the locality should at once be furnished with information of their release, in order that they may be kept under surveillance.”

We have not room to enter farther into detail on this important subject. The quotations, however, which we have made above, sufficiently shew the lamentable deficiency of the means at present existing for the repression of crime. It is

obvious, that with respect to a large number of adult criminals any attempt at reformation must be comparatively hopeless ; but the case is widely different as regards juvenile offenders, and we are delighted to see practical men turning their attention to the subject, and supplying data and suggestions on which measures of an efficient remedial character may be based. The "1000 juveniles of both sexes" alleged to exist in this city, either as thieves or the associates of thieves, have of course been born and nurtured in crime. Parental example, the promptings of want, and the loose morality of companions, are influences which few even of the better ranks could withstand ; and what must be their effect on the minds of ignorant and helpless children, destitute of all moral or intellectual training ? It is the natural tendency of young natures to be swayed by the precepts and examples which their position in society places before them ; and where both are vicious, a life of vice is almost inevitable. Hence large numbers of children in every large city are thrown, without any fault of their own, into what may be regarded as daily and nightly schools of crime : to steal and escape punishment is held out as the highest merit ; children, ever active and emulous, become precocious in dishonesty and deception ; and a race of men and women are trained up to scourge society with their depredations, to crowd our prisons, as rebels against the most sacred and essential rights of mankind, and to be the creators, in turn, of a fresh generation of criminals.

In order to meet this enormous, and, we fear, growing evil, a new system of criminal treatment is required. The first offences are generally slight, short terms of imprisonment are awarded, and thus the offenders not only become initiated by degrees into crime, but become gradually familiarized to confinement, until the prison loses nearly all its terrors. The great object, therefore, is to adopt measures calculated to check crime at its source—to arrest it in its first small beginnings, and by a proper system of discipline to turn the minds of young offenders into better channels ; and Messrs Brebner and Miller deserve the thanks of the public for endeavouring to shew in what way this incalculable good may be accomplished. There are certainly few subjects which have more urgent claims on the attention of statesmen and philanthropists.

VI. *Remarks on Mr Prideaux's Theory of Volition, as the Cause of Phreno-Mesmeric Manifestations.* By Mr W. R. Lowe, Wolverhampton.

Having already appeared in the *Phrenological Journal* as an advocate of Phreno-Mesmerism, so far at least as it appears to be borne out by facts, the readers of these pages will, I am sure, acquit me of anything like obtrusion, in offering a few remarks on the recent papers of Mr Brindley and Mr Prideaux on the same subject.* The paper of Mr Brindley requires no very extended notice. His experiments, if they were carefully conducted, appear to militate against those mentioned by myself as suggesting the subdivision of many of our ascertained organs. Let such experiments be multiplied and carefully recorded by various operators, and we may then, perhaps, ere long be able satisfactorily to adjust the subject. Of course, no truth-loving phrenologist can have any interest in the matter, further than the desire of coming to correct conclusions, if possible ; and the object of my own paper was (as therein stated) not to make proselytes, but merely to excite others to similar experiments.

Mr Prideaux considers Phreno-Mesmerism entirely a delusion, and expresses the opinion that volition (whether consciously or unconsciously exercised), on the part of the operator, is in reality the *primum mobile*, or sole agent at work. Mr Prideaux's paper is ably and ingeniously argued ; and as any views receiving the sanction of that gentleman's well-known name necessarily deserve the respect and examination of phrenologists at large, he will, without doubt, pardon me for expressing the opposite belief, viz. that volition is not sufficient to unravel the tangled web of Mesmerism ; and for stating a few facts and reasons in favour of that opinion. In doing this, I am far from denying that an operator's volition may, or indeed *does*, produce in certain patients certain effects : for, though we have the high authority of Dr Elliotson for the facts, that " his will has hitherto been powerless in all mesmeric experiments," " that he has never yet accomplished *anything* in Mesmerism by it alone," and that " he has willed the excitement of distinct cerebral organs, but always in vain," and " has looked intently at the situation of distinct cerebral organs, and *willed powerfully*, but always in vain ;" and though my own limited experience has been of a precisely similar description—I having never educed any

* See *Phrenological Journal*, No. LXXIX. pp. 172 and 158.

manifestation which could fairly be attributed to the will—yet from the number of highly respectable operators who have found their mesmerised patients unwittingly fulfilling their volitions, it seems evident that the will (like association and suggestion in certain other cases) is at least *one* of the agents concerned in the production of mesmeric phenomena. Still, if it be *one*, it does not necessarily follow that it should be the *only* agent at work ; and the one class of cases, wherein manifestations are elicited in obedience to an operator's will, cannot possibly invalidate *the other* class of cases, in which similar manifestations are produced by contact with, or pointing to, the organs themselves, while *no* volition is exerted. I am, therefore, after carefully perusing Mr Prideaux's article, and reviewing the various facts which have come before me, compelled to express the opinion, that the phenomena of Phreno-Mesmerism may be produced both by contact with the scalp of the patient, *without* the operator exerting his will ; and by *will, without contact* ; and also perhaps by will and contact together. This opinion Mr Prideaux considers " more ingenious than probable ;" though, with deference, as it appears to me the only one capable of accounting for *all* the phenomena, I think that designation reversed ; "*more probable than ingenious*" would more correctly describe it.

Mr Prideaux is certainly correct in stating that volition may be exercised unconsciously, and (if such a solecism may be allowed) almost unintentionally ; and that hence it may have been exerted in numerous instances without the operator being aware of this. But he will surely grant that will may be as powerful *in one direction as in another* ; and hence, if Dr Elliotson, or any other mesmerist, *will* to remain a passive spectator of results, consciously determining not to influence, the patient at all, I presume that he can do so ; and that, therefore, when Dr Elliotson advises operators to "will nothing," he is not enjoining an impossibility.

Again, I cannot attach so much importance as Mr Prideaux, to the fact that we cannot at present describe the mode of transmission of the exciting influence (whatever that may be) to the organs. The mesmeric excitation of the cerebral organs is a discovery of recent date, and is only just now becoming *sufficiently respectable* in the eyes of the world to receive that investigation which it deserves. The history of every science, moreover, will shew that *the observation* of phenomena, sometimes of a startling and anomalous character, has always been *antecedent* to the discovery of the causes which produced them ; but the fact of those causes being at first hidden or obscure, has not been considered a sufficient

reason for the rejection of the phenomena themselves. The mesmerists of the present day appear to be in a somewhat analogous position to that of the astronomers before the discovery of gravitation: facts have been observed to which they cannot refuse credence, but which time and patience can alone enable them to explain. Further, however, I cannot perceive how the theory of volition (supposing that to have overturned the phreno-mesmerists) would help us out of this difficulty; for if the phreno-mesmerist cannot at present tell how he transmits or applies the exciting influence to distinct portions of the encephalon, so neither can the *volitionist* (if I may coin a word) explain *how it is* that his will becomes transmitted to another person, and that his very thoughts are patent to, and shared by, his mesmerisee. If we reject the doctrine of mind (or spirit), moreover, and believe, with Mr Prideaux, that the mental phenomena are a mere product of "a certain form and arrangement of nervous matter,"* then the *modus operandi* of volition, or (in more correct terms) the *modus transmissionis* of the will from one organization to another, appears still more difficult of explication. Further still, I am not aware that the phreno-mesmerist is in a worse position than the mere phrenologist, for the latter would be just as much puzzled to explain the undue transmission of the "*vis nervosa*," or exciting influence, to any particular portion of the brain, from *internal* causes (in cases of disease and monomania for example), while the greater portion of the cerebral mass remains only in a state of normal activity,—as would the phreno-mesmerist, to explain a similar excitement of single organs from *external* contact during mesmeric sleep. I repeat, then, that the difficulty of explaining this mode of exciting does not appear to me so formidable an objection as to Mr Prideaux; especially when we recollect, as Dr Elliotson has well observed, "that the brain is but an organ of the body, and its separate portions like so many separate portions of other organs. A great fault has been committed by physiologists and pathologists, in not viewing the brain and its functions exactly like those of all other organs. Its composition and organization are peculiar; but still it is an animal compound and organization, has blood circulating most abundantly through it, and possesses bloodless vessels and fibres, and pulpy matter; and is of necessity subject to all the general laws of structure and function with all other organs, both in health and disease. If, therefore, other parts, and portions of other parts, can be excited and

* See Phren. Journal, vol. xvi. p. 54.

stupefied or relaxed by true mesmeric means—by an occult influence—it would indeed be singular if this were not the case also with the brain. If Phrenology is true, and if Mesmerism is true, then we might presume that individual cerebral organs would, in many mesmeric patients, be acted upon like the individual parts of an extremity, or the individual organs of sense; but not in all, because we cannot affect every other organ, or every portion of every other part, at pleasure, in every patient.”*

Again, Mr Prideaux asks, “What becomes of the power of local stimulus, when an operator excites the organ of Benevolence by placing his finger upon Destructiveness?” In reply to this I would state, that I have neither seen nor heard of any such cases, except when the patient has had *previous training*. (By training, I do not mean such in the usual acceptation of the term, but merely imply that arbitrary associations must in such cases have been formed, from suggestions or otherwise, which have thwarted and interfered with what would otherwise have been manifested.) I am not aware that any such contradictory result has occurred, where a non-phrenological patient has been mesmerised for the first time, and no suggestions have been suffered to interfere with the ordinary manifestations. At some recent private experiments in this town, for example, while shewing the community of taste in a mesmerised female (who was then highly susceptible to impressions from without), a small quantity of sugar was placed in my mouth without a syllable being spoken; when it was instantly described, and to all appearance actually tasted by the patient: immediately afterwards, however (as had been privately arranged between a clergymen and a physician present), a gentleman exclaimed audibly, “Try some vinegar;” but instead of vinegar, sugar was again placed in my mouth. The patient again smacked her lips as before, but on being asked what she was tasting, replied, “I do not exactly know; it is a lozenge of some kind; it tastes *sweet*, but has a *sourish* taste also with it.” Now, here it is evident that the usual community of taste had been interfered with by a suggestion; but Mr Prideaux would not surely on that account reject community of taste as a fallacy: so, neither in the other cases should the effects of arbitrary associations or suggestions be considered valid evidence against phreno-mesmeric manifestations, when uninterrupted by these disturbing causes.

Mr Prideaux objects further, “Above all, how are we to explain the fact, that hundreds of individuals have practised

* Zoist, No. III. p. 240.

Mesmerism during the last fifty years, and thousands of persons been mesmerised on all parts of their bodies, without the peculiar phenomena of the excitation of the cerebral organs once occurring *till the operators became phrenologists?*" This objection, I apprehend, may be disposed of in much the same way as a denial of the circulation of the blood, because it was not discovered before the time of Harvey, though thousands of persons had been operated upon both in life and after death, by thousands of physicians and surgeons, prior to 1615. It does, indeed, appear surprising that the mesmeric excitability of distinct cerebral organs was not earlier discovered; and, accordingly, we find Dr Elliotson wondering that, "in the midst of innumerable experiments during the last five years, he never once thought of mesmerising them; but," continues he, "neither the possibility nor the impossibility once occurred to me." And surprising as this really appears, it is certainly not more so than the non-discovery of the circulation of the blood until comparatively so recent a date,—especially when we recollect that any man placing his hand upon his wrist might have felt its motion for himself. The accidental, and sometimes trivial circumstances which have led to great discoveries, have always excited surprise (that of Gravitation may be mentioned as another example); and when once announced, a thousand reflecting individuals have been struck with astonishment, that they themselves should have lived so long, and not have been the lucky discoverers. Instead, indeed, of thinking with Mr Prideaux, that the late discovery of Phreno-Mesmerism affords any argument against its reality, *the circumstances attending* that discovery appear to me to tell the other way. They are thus related by Dr Elliotson in his address to the Phrenological Association last year:—"Dr Collyer first discovered, and quite accidentally, in November 1839, at Pittsfield, in North America, the possibility of exciting distinct cerebral organs by contact with the corresponding portions of the surface of the head. At a party, when Mesmerism was the topic of conversation, he threw into the mesmeric sleep a young lady who had always refused to allow him to examine her cerebral development. He took this opportunity of examining it with his hands, and, to his astonishment, as he touched over the organs of Self-esteem, Combativeness, Wit, &c., the respective faculties went into action. He was, however, already so excited with the occurrence of clairvoyance at this period, that he confesses he paid very little attention to the circumstance. In Louisiana, during the following spring, he produced the same results; and, having become a lecturer on Mesmerism at Boston, in the

spring of 1841 he publicly demonstrated such facts there as early as May; above two months before any other person in America pretends to have made similar observations." After this, however, Dr Collyer appears to have fancied that he had been mistaken, and was led to deny that "the organs were ever excited by the *transmission* of any force from the fingers." Dr Elliotson continues, "A postscript to the pamphlet (Dr Collyer's) contains an extract from a letter of my own, in which I urge that 'I affect some of my patients by *pointing* only, when their eyes are closed or bandaged; and if any stranger, unacquainted with Phrenology, points, and I do not know where he is pointing, the effect is produced;' and an avowal that he has now seen this done by Captain Daniell, a friend of mine from England, and several times done it himself; but he adds that he 'has attributed it to the Captain's will.' In a letter from Dr Collyer, dated the 17th of last month (June) and received by me last week, he writes, 'Since I received your communication, which says you have repeatedly effected this by pointing, I suspend my opinion; I am inclined to think I accomplished that last night again, when there was no possibility of either party being acquainted with Phrenology.' In America also, the Rev. La Roy Sunderland made experiments upon the subject after Dr Collyer; and Dr Buchanan produced effects in the waking state, by contact with portions of the heads of persons who had previously been found susceptible of Mesmerism."* To my own mind the above plain narrative seems to tell strongly in favour of the reality of the discovery; the accidental circumstances which unexpectedly led to it, and Dr Collyer's subsequent doubts, affording at least ample security that there was no speculative spirit on the part of the discoverer, nor any desire to be the founder of a system. The accidental discovery of Phreno-Mesmerism in this country also, by two or three gentlemen about the same time, and without any knowledge of the fact that a similar discovery had been made on the other side of the Atlantic, is a singular coincidence, having the same tendency.

Before passing on to mention a few classes of cases which appear irreconcilable with Mr Prideaux's theory, there is one other observation in his paper, which I cannot refrain from noticing; it is to the effect that cases in which both operators and patients are non-phrenologists "are rendered worthless as evidence, by the presence of any phrenologist during the experiment." This opinion certainly appears to myself (to

* Zoist; No. III. p. 237.

use Mr Prideaux's own words) far "more ingenious than probable." I have seen more than one case (and, of course, can produce evidence for the statement if required), in which both patient and operator have been entirely ignorant of Phrenology, yet where the patient has been able to hear only his mesmeriser's voice, and contact by any one but the operator has failed to elicit the mental manifestations. If, then, the volition of a bystander be uniformly as efficacious as that of the original operator, what an anomaly have we here! Strange, that the silent volition of a spectator, unconsciously exerted, and without contact, should accomplish that which the same volitions, *audibly expressed and aided by contact*, were unable to produce!* Again, if the volition of bystanders, not placed in contact with the patient, be thus potent, one would imagine that it should be equally powerful when exerted *in an opposite direction*; and that, *ergo*, no successful experiment could be conducted in the presence of anti-phrenologists, or anti-mesmerists. This would certainly form an ingenious and useful apology in cases of the failure of any experiments before a public audience, though I question whether the public would be very willing to admit its validity. Further still, this objection most effectually cuts away every possibility of Mr Prideaux becoming himself convinced of Phreno-Mesmerism by *personal observation*: for if no phrenologist must be present during the experiments, his faith can only rest upon the testimony of others; and the question then arises, What amount of evidence, in the shape of testimony, would be considered conclusive?

And now, having noticed most of those passages which struck me on the perusal of Mr Prideaux's article, I pass on to the enumeration of a few facts and cases which appear to be at variance with his idea that volition is the "alpha and omega" of the affair. And,

1st, I would instance such cases as those mentioned by Dr Elliotson, in the passage already quoted (p. 281); in which, "if a stranger unacquainted with Phrenology points, and he (Dr E.) *does not know where he is pointing*, the effect is produced." With a view of testing this, I recently tried an experiment with a highly intellectual lady, thus:—As soon

* Mr Prideaux mentions an instance of a patient being in a state of mental relationship with another gentleman besides the operator, and says that such cases are of every-day occurrence. This may be quite correct; but *one* such case as the above, where the patient is evidently *not* in mental relationship with any but the operator, and that operator a non-phrenologist, seems conclusive, as far as it goes, in establishing Phreno-Mesmerism.

as mesmerised, I turned my back upon her, and (having requested her father, who was the only spectator, to watch the manifestations, if any) extended my finger backwards and touched the head at random. The experiment was twice repeated with the most perfect success; for, though it was impossible for me even to guess the part of the head that was touched, and therefore volition was out of the question, the manifestations were as distinct and characteristic as though I had operated in the usual manner.*

2dly, What becomes of the power of the *will*, when an operator, *desiring to elicit the manifestations of one organ, puts his finger by mistake upon another, and calls forth the action of the latter?* This I have observed in scores, if not hundreds, of instances, with many different operators. Indeed nothing is more common than for a phrenologist to *will* to produce orthodox manifestations from what he considers the orthodox place in the head, and yet for a heterodox function to present itself in spite of his will, which is the first proof that he has touched the wrong place. It is almost a work of supererogation to quote examples of this; I will therefore only give one. On the occasion of my friend Dr Owens submitting his mesmeric experiments to a medical committee in this town, a number of labels were handed up to him, containing the names of various organs which he excited at the pleasure of his audience; and on touching what he imagined to be "*Tune*," a very contradictory manifestation appeared. The patient (who was an usher in an academy) took his pen-knife from his pocket, and began to use it as though he were mending pens. "*This*," cried the Doctor, "must be considered a failure;" but, on more minute observation, it appeared that the Doctor's finger was too low for *Tune* and was upon *Constructiveness*, the head of the patient having been in an awkward position for the experiment. Here, then, the truth of Phreno-Mesmerism was proved by an error, with which volition on the operator's part could have had nothing to do.

3dly, What becomes of the exclusive theory of will, when patients give manifestations of the organs, on their heads coming in contact with adjacent inanimate objects? I have seen this happen very many times. For instance, the proper part of the head of a boy touched the back of the chair in which he sat, and Philoprogenitiveness was im-

* In justice to Mr Prideaux, I must admit that the spectator, on this occasion, was a phrenologist; but from an unfortunate defect of vision, he could not observe the precise point of the cranium that was touched, but merely watched the manifestations. When I turned round and saw where the finger was placed, the whole was found to correspond.

mediately manifested. On moving backwards and forwards in the attitude of nursing, the higher portion of the back of the head, Self-Esteem, touched the chair, and the corresponding manifestation was produced. He then accidentally brought the *side* of the head in contact, and the manifestation of Destructiveness immediately succeeded. The same results took place with the other organs also.

A highly intelligent friend in Liverpool, who was aware of my intention to reply to Mr Prideaux's paper, has favoured me, by letter, with the following interesting information on this point. He says, "The facts recorded by Mr Hamilton, the secretary of the Mesmeric Society of this town, one of the clearest-headed and most philosophical investigators of the subject in this country, are quite at variance with Mr Prideaux's *wilful* theory. Mr H. suspended weights over the head of a patient, and by this means elicited manifestations of the organs on the coronal surface; correspondent to the relative positions of the head and weight. For example, if the weight was suspended at first over Veneration, when that organ came into activity the head moved forward and downward in the act of devotion; this brought Firmness and Self-Esteem opposite the weight, whereupon the head was instantly erected in correspondence with the natural language of these organs; and as this would perhaps carry the head *farther back* than the weight, Veneration again, or even Benevolence, would be brought under the weight, and the manifestations of one or other of these organs would be quickly induced. Mr Prideaux may object, that the presence of phrenologists renders these experiments worthless as evidence in favour of a theory different from his own; but they were performed first privately by Mr H., when he was by no means familiar with Phrenology, and the chances, therefore, are, that he could not anticipate correctly *what* manifestation was to occur." For a detailed account of Mr Hamilton's experiments, see the *Phreno-Magnet*, No. IV.

4thly, The very fact of many operators having elicited novel, and to them, at first, startling and unexpected manifestations, when touching what they supposed to be the localities of known organs (and, therefore, if unconsciously willing at all, *willing* the usual manifestations), is at once a proof that the manifestations educed cannot have been the result of the operator's will. In illustration of this, I may quote a somewhat interesting case. My friend, Mr Leighton of Liverpool, was some time since trying to excite in a young lady the activity of Alimentiveness; when, to his astonishment, instead of evincing the usual desire for food, &c., the patient was seized with a paroxysm of horror, and in agony exclaimed, that a dreadful

monster was haunting her. He repeated the experiment with the same result ; and on noticing more narrowly the spot which he had touched, found that the finger was not on Alimentiveness, but was just *below* and *before* the spot assigned to that organ. On moving the finger slightly upwards and backwards, the usual manifestation of Alimentiveness appeared. Some time afterwards I also mesmerised this lady, and obtained the same result on touching the same spot : her countenance assumed the aspect of perfect horror ; she raised her hands, drew back her chair, and cried in agony, “ Good God ! what is that ? A horrible monster is staring at me with all his eyes, and his body is covered with eyes ! ” Dr Owens of this town, though he had never seen anything of the kind before, elicited a similar manifestation on touching the same part of the head in another patient ; and though I do not for a moment maintain that two isolated cases are sufficient to establish a new organ in that locality, nor, if they were, am I yet prepared even to guess at its proper function (for it cannot be for a moment thought, that we have an organ whose province it is—*save in abuse*—to excite the idea of being haunted with ogres and spectres) ; yet this single example surely proves that the operator’s volition had nothing whatever to do with eliciting the manifestation in question.* Many similar instances might be adduced ; but this one may suffice to shew the non-necessity of volition, and to answer Mr Prideaux’s objection, that if Phreno-Mesmerism were true, “ the earliest experimenters would occasionally, whilst operating on the supposed locality of one organ, with a view to elicit its function, have been surprised by the manifestation of some new faculty, of the existence of which they previously entertained no idea.”

5thly, Again, it is well known to most mesmeric operators, that the force and vividness of the manifestations elicited, bear direct reference to *the size of the organs excited*, rather than to the force of the operator’s volition. Every mesmerist with whom I have conversed on the subject, has found that a small organ evolves but a feeble manifestation, while a large one in the same head, may, in proportion to its size, be vi-

* Dr Owens has suggested, that if it should eventually be found that an organ, which, when in abuse, leads to the idea of being haunted with spectres, &c., be located in this part of the head, it will afford a hypothetical explanation of the horrors of night-mare after taking a hearty supper, as well as of the visions which sometimes haunt the dyspeptic, and the fearful spectres that are conjured up during attacks of delirium tremens after excessive drinking, by supposing the undue excitement of Alimentiveness to extend to this, its neighbouring convolution.

gorously excited. This is admitted even by Mr Braid, who, though no phreno-mesmerist, has been extremely diligent in observing facts, and who says, at p. 97 of his interesting treatise on Neurypnology, that "the sympathetic points," as he terms them, "are pretty near the centres of the organs, as mapped out on heads generally approved by phrenologists: and he has had decided proof that there is some relation subsists betwixt the size and function, as in general there is more energy displayed when there is large development, and the negative when it is defective. Thus a patient with large Combativeness or Destructiveness, when excited during hypnotism, will display great violence and disposition to attack others, whereas when they are defective they will shrink, and express a fear that some one is quarrelling, or angry with them."

6thly, The fact, already adverted to, that, in some individuals, merely pointing at the organs is sufficient to excite them; while in others, *though volition may be as energetically exercised as in the former cases*, nothing can be elicited, save by actual contact,—seems singularly at variance with the idea that volition is the only agent at work.

And, 7thly, If the will be the sole means of exciting mesmeric manifestations, why is it not equally efficacious in causing them to subside? Such is certainly not the case; for, when a large organ is vigorously excited, merely willing the subsidence of that excitement, without demesmerising, is not found sufficient for the purpose; and on removing the finger from one organ to another, without demesmerising the former by a breath of air or otherwise, the manifestations of the latter are frequently of a compound character, indicating the continued partial activity of the organ previously excited. This I have seen in numerous cases, sometimes to the great annoyance of operators in public, who have thus found the manifestations less distinct and clear than they could have wished. So again, when an organ has been excited through the head of a third person (*i. e.* a non-mesmerised person being placed in contact with the patient, and the organs touched in the head of the former, when the manifestations are immediately given by the latter), it is frequently found necessary to demesmerise the organ in the head of *the interposed person*, as well as of the patient, before the manifestations cease.*

* The singular, and sometimes distressing phenomena of "*cross mesmerism*" (as it has been termed), which have often been evinced when highly susceptible patients have been touched by some other person than the original operator, seem also to indicate the activity of some

The foregoing remarks, hastily thrown together, will, I trust, be received by Mr Prideaux and his followers in that spirit of candour in which they are written. We are all anxious to arrive at the same goal, *Truth*; though, as yet, the path which leads to it (in this subject at least) seems obscure and uncertain. Phreno-Mesmerism, like the enigma of the Sphinx of old, is at present difficult of explication; and, though further investigation will doubtless clear away many of the difficulties, enough has, I think, been urged, to show that the theory of volition is, at all events, not the *Cedipus* to solve its mysteries.

WOLVERHAMPTON, *May* 18. 1844.

VII.—*Facts against Mr Prideaux's "Fallacies of Phreno-Magnetism."* By H. G. ATKINSON, F.G.S., &c.*

TO THE EDITOR OF THE PHRENOLOGICAL JOURNAL.

18 UPPER GLOUCESTER PLACE, LONDON,
20th *May* 1844.

DEAR SIR,—At the meeting of the Phrenological Association in 1842, I read a paper on Mesmero-Phrenology, and during the discussion which ensued, Dr Engledue favoured us with the contents of a letter from Mr Prideaux, on the fallacies of that supposed discovery; but as I had anticipated the objections urged, and fully answered them in the paper alluded to, little attention was paid to the communication. The next year, Mr Prideaux published this letter in the *Medical Times*; and the third year, I find it, with some additions, again before the public, in the pages of your Journal. This is really very kind of Mr Prideaux to take so much pains in the hope that he shall clear the vision of more than a few on the subject of Phreno-Mesmerism, by again and again bringing forward his opinions on the subject; but I am exceedingly glad that he has taken this trouble upon himself to point out what he conceives to be objections to any conclusions drawn from experiments in this new science, which he considers a delusion; for I care not whether Phrenology, or Mesmerism, or Phreno-Mesmerism, be true or not—all I desire is to know what is true,

other principle than volition. Of course, neither operator nor spectators could unconsciously *will* the cramp and convulsions which have frequently been thus produced.

* Having already inserted Mr Lowe's reply to Mr Prideaux, we find it necessary to omit the less material portions of this communication from Mr Atkinson. A third reply, by Mr T. B. Brindley, must be declined altogether.—Ed.

and to avoid error ; for when any opinions I have held to be true, are shown to be incorrect, most gladly shall I cast them aside, and embrace the truth ; and those are not always our worst enemies who would carefully point out our faults. But Mr Prideaux puts forth these objections of his, as though they had not occurred to any but himself, and omits to answer the explanations given by others touching the very points to which he continues to refer. Why has he not shewn the insufficiency of the arguments in my last paper to the Phrenological Association, which was published in the *Medical Times* and other periodicals, or of similar arguments used by Dr Elliotson in his *Letter* on the subject, and in his Address to the Association ? No, he omits to do this, and continues to put forth, as all-sufficient and unanswerable, objections which have already been well considered and disposed of ; and from some motive or other, mentions Dr Elliotson and my humbler self in a most absurd and unjust manner, only to sneer at our doings, and in a style I think not most becoming a philosopher ; yet declaring at the same time, "that he is actuated solely by a desire to arrive at the truth, and is unconscious of any motive likely to bias his judgment." Alas ! how curiously blind are even practical phrenologists to the self-deluding bias arising in their own organism from peculiar circumstances in their position, to those motives which rise up like clouds of dust before their eyes at every turn !

The fact that Mr Prideaux's patients shew a degree of sympathy with the mesmeriser, is apparently the whole difficulty to be got over. Mr Prideaux's patients sympathise with him and obey his will, therefore Phreno-Mesmerism is a fallacy ; and at first, indeed, this does seem like an insurmountable difficulty. But is there no way of meeting the objection which this power of sympathising presents ? My answer is (and it has already been given again and again), that with the cases to which I have chiefly alluded, this great difficulty *does not* exist ; the patients I refer to, do not sympathise with me at all, nor act in obedience to my will ; and were I inclined to hasty generalization from partial and imperfect inquiry, I might, with others, have declared against the existence of sympathy and the power to will particular effects, with as much shew of reason as Mr Prideaux has against Phreno-Magnetism. But I know that, in many cases, sympathy, more or less, does exist, and with some mesmerisers more than with others ; that the case of each patient should only be taken for what it is worth, and that worth to be ascertained only by careful observation of the peculiar conditions requisite in each instance. And to shew that others are alive to this objection of sympathy.

in particular cases, to follow the will of the mesmeriser, I refer to my writings on the subject from the first announcement of my discoveries, and to a letter to Mr Spencer Hall, wherein I request a statement of the degree of sympathy existing in those patients on whom he has operated: Mr Hall promised to consider my observations and to answer them; nevertheless, his *Phreno-Magnet* came to an end without his having done so. But it is not my intention, Sir, to trouble you at present with all the variety of means by which Phreno-Mesmerism may be tested, and every objection satisfactorily answered; it is sufficient for me to say, that the sympathy objected to by Mr Prideaux, in a great number of cases of my own, and of others I have seen, *does not exist*, and that where it *does* exist, there are still means of making valuable experiments in Phreno-Mesmerism, leading to most important ends.

Mr Prideaux says that I have put myself forward as the discoverer of Phreno-Mesmerism in this country, and unjustly so with reference to others. Now, I appeal to you, Sir, if I have been unjust in this; for I have done no more than to simply state the facts as they occurred to myself and others, and to correct misstatements; for I have always said that it was of no importance who was the first discoverer, but that it *is* important to know how several persons, unknown to each other, made similar discoveries; and it is interesting, of course, that the date of each should be recorded, with the circumstances under which such effects were first observed. Dear Sir, very sincerely yours,

HENRY G. ATKINSON.

II. NOTICES OF BOOKS.

- I. *Principles of Forensic Medicine*. By WILLIAM A. GUY, M.B. Cantab., Professor of Forensic Medicine, King's College, London; Physician to King's College Hospital, &c., &c.
PART II. London: H. Renshaw. 1843. 12mo.

The sixth chapter of Dr Guy's work, headed "Unsoundness of Mind," is the only portion of it within our critical province. To that subject the author has devoted sixty-seven closely printed pages; in attentively perusing which, we have been delighted with the acuteness, candour, extensive information, and sound judgment, which he displays. There is so much condensation of matter in the work itself, that any attempt to abridge the contents of the chapter would be vain. We must therefore confine ourselves to the points likely to be most interesting to our readers.

After specifying some of the numerous occasions on which the medical man may be required to give evidence as to the mental condition of individuals, Dr Guy remarks, that the importance of the duties which the witness has to perform, is only exceeded by their difficulty ; which difficulty is partly inherent in the subject itself, and partly due to the requirements of the law. "It may be well to premise," he continues, "that one source of the difficulties connected with this subject may be traced to the prominence and importance formerly given, in works on the human mind, to one or two of its higher faculties. The reason and the imagination were put so prominently forward, and the emotions and passions were made to play so subordinate a part, that soundness and unsoundness of mind came to be regarded as almost synonymous with a sound or erring reason ; imagination had to bear all the blame of misleading the judgment, and delusion became the favourite test of insanity. It is not intended to assert that the metaphysicians were ignorant of the power of the emotions and passions, but merely that they were led to attach a higher importance to those faculties of the mind which give the widest scope to the speculations of the philosopher. To Gall and Spurzheim, and their followers, is due the great merit of having directed attention to those faculties which are the real source of action—the emotions and passions ; and to them must be ascribed the praise of having originated the simplest, and by far the most practical, theory of the human mind. The phrenological question of the mutual relation existing between certain parts of the brain, certain faculties of the mind, and certain developments of the cranium, may be still a matter of doubt, and the practical advantages accruing from a knowledge of those relations a subject of controversy ; but of the soundness of the theory, that the mind is a compound of several faculties, capable of acting either alone or in combination, varying greatly in power in different persons, and in the same person at different times, there can be no longer any reasonable doubt. Admit the theory of the separate existence, and possible separate action, of the several faculties of the mind,—the reasoning faculties, the emotions or sentiments, and the passions,—and it is not more difficult to imagine a moral than an intellectual insanity ; allow that the several faculties, originally of different power in different persons, may combine in many different ways, and we have the materials of an almost infinite variety of character ; the key to endless diversities of opinion, and the explanation of all that is most obscure in the motives and conduct of mankind. The theory, then, of separate faculties, originally of

different power, susceptible of improvement by education and habit, and of different degrees of excitement, from causes acting within the body itself or from without, manifesting themselves sometimes alone, and sometimes in combination with other faculties,—is the theory which is here assumed, as best agreeing with reason and experience.”

The author then proceeds to consider the terms applied in medical and legal works to different forms of unsoundness of mind, and gives the following table, as, in his opinion, exhibiting the best classification of these :—

UNSOUNDNESS OF MIND.				
FROM DEFECTIVE DEVELOPMENT, OR DIMINISHED ACTIVITY OF THE FACULTIES.	{	Congenital, or occurring in childhood.	Amentia	{ 1. Idiocy (including Cre- tinism). 2. Imbecility.
		Occurring sub- sequent to the deve- lopment of the faculties		
	{		Dementia	{ 1. Consequent on Mania, mental shocks, or in- juries of the brain. 2. Senile.
FROM UNDUE EXCITEMENT.	{		Mania	{ 1. General. 2. Intellec- tual. { a. General. b. Partial. 3. Moral. { a. General. b. Partial.

“ This scheme,” says Dr Guy, “ corresponds closely with the actual state of our knowledge, and has the advantage of following as nearly as possible the order of nature. It has been preferred to any division founded on the assumption that unsoundness of mind is always dependent upon inflammation or organic disease of the brain. Such an arrangement, though useful for medical purposes, is altogether inapplicable to questions of a medico-legal nature, which have little to do with pathology, but regard the mind in its outward manifestations, and not in the morbid changes which its organ may be presumed to undergo.”

The subject is treated by Dr Guy under the following heads :—1. Of certain unusual conditions of the mind not included under the general term mental unsoundness, and of the phenomena of dreaming. 2. Of certain conditions of the mind allied to mental unsoundness, but produced by temporary causes, viz. delirium, delirium tremens, and drunkenness. 3. Of the several forms of unsound mind, treated in the order in which they stand in the foregoing table. 4. Of some of the more important characters of the unsound mind, and of the

medical and legal tests of that unsoundness. 5. Of feigned unsoundness of mind. And, lastly, Rules for the examination of persons supposed to be of unsound mind.

In the section on Imbecility, a well-expressed remark is quoted from Georget—that “these beings of limited capacity furnish to the courts of justice, to prisons and scaffolds, more subjects than it is generally supposed.”

With respect to Intellectual Mania, the author observes, that in some instances maniacal excitement of the intellectual faculties seems to occur, the moral faculties being little if at all affected. The most simple form of partial intellectual mania “is that in which the patient has taken up some single notion opposed to common sense and personal experience. Of this kind is a case mentioned by Sir George Mackenzie.* ‘I knew one,’ he says, ‘who seemed a discreet person, and could converse most pertinently in everything, till they spoke of the moon; but, upon hearing that named, fell instantly a staring, and into great extravagancies, believing himself to be secretary to the moon.’” Moral mania is, however, much more frequent than mere intellectual; but few cases of the former seem to occur without deranging, or, what is probably a more correct expression of the fact in many instances, *overpowering* the intellect. The latter circumstance ought not to surprise us; for even in the healthy state, excitement of the feelings is proverbially apt to distort the perceptions of the intellect, thus leading to groundless belief and unreasonable conduct. Still there are cases in which the intellect is not involved in the derangement. In the words of Hoffbauer, “The maniac may judge correctly of his actions, without being in a condition to repress his passions, and to abstain from the acts of violence to which they impel him.” Dr Guy specifies, as some of the principal forms of partial moral mania, “Cleptomania, or propensity to theft,” “Lying,” “Erotomania, or amorous madness,” “Pyromania, or a morbid propensity to incendiarism,” “Suicidal monomania,” and “Homicidal mania.”

Among the characters of unsoundness of mind, he gives due weight to the comparison of the existing with the former state of the patient's mind.† In the case of imbeciles, as in

* “Reason, an Essay, 1711.”

† The *Jurist* of 4th Nov. 1843, contains a report of the case of “Mudway v. Croft, Committee of R. Wicks, a lunatic,” decided in the Prerogative Court on 8th August. Sir H. Jenner Fust laid down (in the very words of Dr Combe; On Mental Derangement, p. 219,) the principle, that “it is the prolonged departure, without an adequate external cause, from the state of feeling and modes of thinking usual to the individual when in health, that is the true feature of disorder in mind;” and

that of maniacs, the law lays down the test of knowledge of right and wrong. "This," says he, "is as insufficient a test in criminal, as the arithmetical test in civil cases. It is a test of knowledge, and not of power; and the knowledge of right, and the power to do it, are as distinct as science and art. An action presupposes knowledge, motive, and will. What if the motive be insane, and the will incapable of obeying any but the insane impulse?" This legal test, however, though received theoretically, has not always been acted upon in our courts of law; witness the noted cases of Hadfield and Martin. If "right and wrong" mean any thing more than "unlawfulness," Dr Guy emphatically pronounces the knowledge of it to be a test which, even were it reasonable in the abstract, is incapable of being made use of in practice. "There is one simple objection to it, and that is, that it never has been, never will be, and never can be, fairly applied. Medical witnesses may express, in general terms, their opinion that a man is irresponsible; judges, in their charges to the jury, may insist upon the distinction; and the jury may, without hesitation, return a verdict of guilty or of acquittal on the ground of insanity; but not one of them will dare to grapple with the naked question of right and wrong; not one of them will be really guilty of such presumption. The author will retract this strong opinion, when he shall meet with an honest and reasonable man who will affirm that he is ready to solve this question. Till then, he will believe it to be possible with one Being alone. If, on the other hand, the words right and wrong be taken to mean *lawful* and *unlawful*, the question is brought within very narrow limits; for the law assumes, that every member of society *knows* what the law is. Insanity, therefore, in order to make a man irresponsible, must, in some way or other, rob him of this knowledge. Now, it is clear that it does not always do this, for cases are on record in which madmen have committed murder that they might suffer the penalty of the law; and, as has been already stated, those who, from being placed under restraint, have grown conscious of their infirmity, know or believe that they are by that infirmity rendered irresponsible. On the other hand, it seems to the last degree improbable, that madmen who suffer from what is usually termed monomania, and whose intellects

the Court, after a careful and laborious investigation, decided the case with reference to it. The trial related to a will made by a person admitted to have been always, through life, of eccentric habits, and during three distinct periods decidedly of unsound mind; and the will having been made in the *ordinary* eccentric state of the testator, it was held by the Court to be valid.

appear to be so little affected that they are allowed to mingle in society like other men, should be ignorant of a law with which from their earliest years they have been familiar, and of which we are all, unfortunately, too often reminded. The knowledge and consciousness of this law may be fairly expected to be the very last of which madness would deprive a man; and if a mere abstract *knowledge* of the law is all that is required to render a man responsible, then *most* madmen are responsible. But is this knowledge really all which requires to be taken into consideration? Is the case of the unhappy maniac under the accusation of crime to be the only one in which the law allows of no plea in mitigation? Is not delusion such a plea? Can any plea be stronger? It would be strange, indeed, if that which exercises so absolute a sway over every sense and every faculty, which has the power at any moment to transport a man into an unreal world, to surround him with unreal things, and to perplex him with more than a dream's confusion, should not be allowed to have any effect upon his actions. It must have some effect. The law cannot be guilty of so great and glaring an inconsistency as to allow the proof of delusion, which is the proof of one form of madness, to vacate a man's civil acts, and yet to have no effect whatever upon his criminal acts; and yet of such an inconsistency it must be guilty, so long as the point upon which the whole question of responsibility turns, is the consciousness that the act is contrary to law."

With respect to a test which has been proposed by a writer in the British and Foreign Medical Review, viz., "Whether or not the individual had, at the time, *any power of control over his actions*?" Dr Guy is of opinion that this is quite as inapplicable as the others. "A man must either know, or not know, that his action is right or lawful, and he must be able, or not able, to control himself; but who will be bold enough to determine, in any particular case, which alternative is the true one? And what shall be his means of judging? Is his preparation for the act to prove his power of controlling himself in regard to the act itself? If a madman thinks another a fiend, or believes that the Deity has commissioned him to take away his life, will he not load a pistol, watch his opportunity, and act in many respects as a sane man would do? And, if prevented on one occasion, will he not wait for a more favourable one? The fact is, that in proposing this test, as in the general discussion of this question, two distinct things have been confounded,—the act itself, which is the result of the delusion, and the mode of accomplishing it. It is the delusion which distinguishes the madman from the sane, and

not the mode in which the delusive impulse is carried into effect. This test, then, appears to be open to the same objections which lie against the legal tests : it seems reasonable, but it is not practical. The entire argument, then, is an *argumentum ad ignorantiam*. It is because we know not what may be, that we do not pretend to say what is ; we have a horror of murder and the murderer ; we should recoil, therefore, from the very thought of a judicial murder ; we think that broad lines of distinction are to be preferred to subtle refinements ; that it is better that punishment should be certain than severe ; and we therefore conclude, that the law of France, ‘ Il n’y a ni crime ni délit lorsque le prévenu était en état de démence au temps de l’action,’ ought to be the law of England.” Dr Guy thinks that if, under such a law, some criminals should escape capital punishment who otherwise would suffer it, on the other hand none would be executed who ought to escape ; and confinement for life, to which the former would be sentenced, is itself a punishment of abundant severity.

In discussing the case of M’Naughten last year,* we suggested the appointment of a public officer, whose duty it should be, on receiving information, to take legal cognisance of lunatics found at large, and to enforce their removal to an asylum. A similar proposal, we are glad to observe, is made by Dr Guy. “ There are doubtless,” says he, “ many persons living at large in society, or under the insufficient control of parents or relations, and known to harbour delusions naturally tending to acts of violence ; and there are others whose delusions tend less directly to criminal acts, but who are subject to sudden and dangerous bursts of passion disproportioned to their cause. Might not the natural guardians of such persons, or those who have assumed the control over them, be required to submit their cases to a competent tribunal, which should decide on the necessity and extent of restraint ? And further, in case of an injury being committed by such persons, might not the sufferer, or those legally dependent upon him for their support, be allowed to recover damages in an action at law against their natural guardians, on proof that they were fully cognisant of the state of the accused, and had neglected to resort to this tribunal, or had not obeyed its orders ? Such an enactment might, it is conceived, be even extended to the overseers and guardians of the poor : but very many cases, among all classes of society, must still remain beyond the reach of any precautionary measure. If such a tribunal were established, its investigations should be conducted at the pub-

* See No. LXXV., April 1843. Vol. xvi. p. 190.

lic expense, or at the least possible cost to the parties resorting to it; its proceedings should be unfettered by technicalities, and it should be presided over by men practically conversant with the insane, who might discharge the additional duty of ascertaining the state of mind of those accused of crime—a duty for which a common jury is totally unfit.” The murder recently committed by a madman at Burntisland strongly enforces the necessity of such a tribunal.

As to that form of homicidal madness of which no indications have appeared previously to the commission of the act, the author is of opinion, that, to prevent sane criminals from taking shelter under the plea of sudden uncontrollable impulse, “it is most important that all the circumstances of the case should be duly weighed, and that careful search should be made after those motives which most frequently actuate the criminal. It is in such difficult cases, too, that a caution is especially necessary against basing a decision upon one or two alleged characteristics. All the circumstances of the act ought to be duly weighed, in the spirit of the words of Lord Hale: ‘lest, on the one side, there be a kind of inhumanity towards the defects of human nature; or, on the other side, too great an indulgence given to great crimes.’” Dr Guy doubts whether the mere act itself ought to be admitted in a court of law as evidence of insanity; but thinks that the circumstances of the case might justify the court in recommending the prisoner to mercy. The only practicable means of preventing murders by such persons consists “in rendering the idea of violent death as little familiar as possible, and in discouraging to the utmost those revolting details which fill the columns of our papers, and often prove suggestive of crime. This precaution must be left to public opinion, which will grow stronger and stronger as the dangers and inconveniences of indiscriminate publicity shall make themselves felt, and the truth become more securely established, that what we wish men not to do we should not talk about.”

II. *Phrenologische Analyse des Characters des Herrn Dr Justinus Kerner.* Von MICHAEL CASTLE, M.D., Mitglied des Medicinischen Collegiums, zu Neu York, &c. &c.

Phrenological Analysis of the Character of Dr Justinus Kerner.

By MICHAEL CASTLE, M.D., Member of the College of Physicians at New York, &c. &c. Heidelberg: Karl Groos, 1844. 8vo.

This is a pamphlet containing xxvi and 74 pages. The first xx pages, in the form of a preface, are from the pen of Dr

Gustaf Scheve, whom our readers will remember as one of the regular contributors to the German Phrenological Journal. The greater portion of the matter contained in this preface refers to facts connected with the history of Phrenology. There is only one point requiring notice here, namely, Dr Scheve's refutation of an opinion of Dr Castle's, that, "in a regenerated state of society, all natural faculties of man, even those which, in consequence of their strength or their kind, may assume an undue influence over the others, will be allowed to come into full play." According to the notions of phrenologists generally, the animal propensities, when they bear too great a proportion to the moral sentiments and the intellectual faculties, ought to be restrained and subdued. Dr Castle calls this "to destroy (kill) a part of the mind." He seems to be an enthusiastic follower of communist or socialist doctrines, with the discussion of which we have here nothing to do. But it must be evident to every sensible phrenologist, that, whatever the state of society may be in which men live, the intellectual faculties and the moral sentiments must remain the *ruling* powers of the mind. It seems to us useless to argue on the subject; a mere glance at society in different ages, and among differently constituted nations, shews us at once, that the degree of civilization is, and has always been, in exact proportion with the natural prevalence or development of the two classes of organs above mentioned.

This preface of Dr Scheve's is followed by some preliminary remarks by the author, on the difference between the *outward* and *inward* character of man, the former of which, according to Dr Castle, is, "that which is produced and modified by the influences of external circumstances upon the natural faculties of man;" and the latter, "that which comes more from a primitive source, is made up of sensations (*empfindungen*), which, though not so clearly perceptible to man as to be understood in detail, are known to him through their results." Next, he gives some "Introductory Remarks on the leading Principles of Phrenology," all of which prefatory matter is, of course, intended for the Germans only, as beginners in, or wholly unacquainted with, Phrenology. At last we come to "the description of the organs of Dr Kerner." Our readers, perhaps, are aware, that this gentleman, a physician at Heilbronn, in the kingdom of Würtemberg, has led the van of a new school of ghost-seers and spirit-layers, which seems to be at present pretty numerous in Suabia. The work which brought Dr Kerner first prominently before the public was *The Female Seer of Prevorst*, containing an account of the disease and treat-

ment of a highly somnambule person of the name of Mrs Hauff. Those of our readers who wish to see an ample account of the wonderful phenomena and strange apparitions of ghosts and spirits, whose owners had died 300 years ago, we beg to refer to articles on this subject, published a few years ago in the *Edinburgh and Foreign Quarterly Reviews*. Dr Kerner has also published a volume of poems full of mystic allusions. From all that we know of him, we had expected to find in him a very large development of Wonder, Ideality, Veneration, and Individuality; but the only organ which is *very* large, is the last named, the other three being stated to be only *large*. In this respect the heads of Jung Stilling and Oberlin, predecessors of Kerner in visionary doctrines, are more conspicuous. To account for this apparent peculiarity, Dr Castle lays a great stress upon the influence of Individuality, in combination with Wonder, Ideality, and Imitation. We subjoin here his reasoning on this point in full:—

“Every faculty and sentiment possesses its own consciousness, its own concentration, its own natural language. But, besides this, there are certain entire faculties, which correspond with the three preceding qualities of the faculties, viz., Concentrativeness, corresponding with the concentration or attention which is to be found in the other faculties; Imitation, corresponding with the natural language; and Individuality, corresponding with the consciousness, or the power, connected with it, of personifying (individualizing) every faculty. Here (in Dr K.’s case) are not only the three above named faculties powerfully developed, but also those of Ideality and Wonder, of which the former, in its own peculiar way, supports the activity of the other faculties, and the latter gives a natural willingness to believe in images conceived by the mind.

“The influence of the organs of Ideality and Wonder is preceded by a powerfully excited feeling (or feelings), recognised as an entity by means of Individuality, concentrated by means of Concentrativeness, and endowed with the capability of acting by means of Imitation. Consequently, the faculties must be combined, if they are to produce the most perfect imagination; and what is called a Vision, is but the highest degree of Imagination. All great poets have visions during the moments of inspiration (highly excited sensation.) This must be quite clear to those who can feel and appreciate the supernatural descriptions found in Virgil, Dante, and Byron. In this sense, I consider also Dr Kerner to be a visionary. But in a far higher degree this must have been the case with Swedenborg.

“Phrenologists, generally, ascribe visions more to the activity of the organ of Form, than to that of any other faculty.* I am however convinced, that whilst several faculties and powers must combine, to produce such a state of mind as that in which visions take place, it is principally dependent upon *Imitation* and *Individuality*.† Gall, who had not yet recognised

* The organs of the perceptive faculties generally, and not merely or principally that of Form, are held to be implicated. See articles on apparitions in this Journal, ii. 290, and viii. 538.—ED.

† “I add the following extract from an article written by me on Individuality, which, perhaps, will be able to enlighten the reader sufficiently on the great influence of this faculty in visions:—

“*Individuality* may be defined as the power of recognising and conceiving individual existences or entities (*Wesenheiten*). The organ of Form observes only the parts or shape of a body, and has its sphere of activity only with regard to objects of sense; whilst *Individuality* does not notice forms, shapes, or constituent parts, but recognises them when embodied in individualities, or as entities.

“‘In order to be as clear as possible, I will express myself in addition thus:—If the idea or image of an absent friend is suddenly brought before our mind, we conceive him or feel him as an individual whole (*Totality*), and our mind does not rest upon his hair, his eyes, his mouth, &c. We say,—‘Friend Henry will be here to-morrow;’ and with the word ‘Friend,’ we connect the notion of a man, of a complete individual, of an individual being. But if we continue our reflections, and analyse our friend, saying, for instance, ‘Henry is a wit, and has, at the same time, something in the expression of his mouth, his nose, and his eyes, which is peculiar to wit,’ we think of this expression, and see it before our mental eye. This would be the immediate result of the organ of Form, which recognises individual parts. It may be objected, that the mouth or nose, when perceived alone, is more an individual object or entity, than the whole compound body; but nevertheless the organ of Form is necessary to judge of their shape; *Individuality* judges of them only as of existing objects. *Individuality* has also a higher sphere of activity in the intellect than the organ of Form. It individualises ideas, and renders one distinct from the other; *e. g.*, when you speak to some persons of love, hatred, conscience, charity, &c., they, indeed, may feel and understand the meaning of the words used, but they are conscious of an association of ideas before they arrive at your meaning; whilst others, who are capable of feeling such sentiments, and in whom *Individuality* predominates, take up directly the idea inherent in these, and feel and conceive it as a thing—as something which has existence. It is extremely difficult to represent the power of *Individuality* by words, at least in this respect. One requires to have it, in order to be able to appreciate its influence properly. It is, however, by no means to be supposed, that this peculiarity occurs in all who have *Individuality* powerfully developed; it depends entirely upon the association of this organ with other organs. A man may, however, be gifted with great *Individuality*, and yet not feel and conceive God as an individual Being, unless he be endowed with powerful religious sentiments. He will, from his education, conceive a God—conceive him however in the shape of a man, and give him a form which he has already perceived; have him, it is true, in his mind as an individuality, but only as an individu-

the real distinction between *Imitation*, *Wonder*, and *Ideality*, has nevertheless observed, that in all visionaries they are particularly developed."—P. 65, *et seq.*

Dr Castle gives a detailed reasoned account of Kerner's mental development during his boyhood, youth, manhood, and the period of approaching old age. (Dr K. is at present in his 57th year.) This account is followed by "Phrenological and general philosophical Remarks on the preceding Analysis;" in which Dr Castle enters into many phrenological details, which shew acuteness of mind, and power of comparison. Lastly, we find a letter from Dr K. to Dr C., in which he seems fully to concur in the correctness of the phrenological analysis of his character, congratulating Dr Castle "upon possessing the knowledge of an art so highly useful to mankind, as it discloses a man's character to himself and others." We have still to add, that the pamphlet is enriched with a lithograph portrait of Dr Kerner, which, however, seems not to be very well executed, or very like; and that it is dedicated to Count Alfred Neipperg, son-in-law to the king of Würtemberg, and a zealous adherent to Phrenology.

Dr Castle has executed his task cleverly, and, it appears, to the great astonishment of the unbelieving Germans. On the whole, we think that this little publication may be of great use in the cause of Phrenology; as such practical demonstrations, if the expression be allowed, tend more to induce people to make themselves acquainted with novel subjects, than a mere perusal of even the best theoretical work on a new branch of science.

ality deduced by an association of ideas, as something which is composed of constituent parts.

"The primitive and direct influence of the faculty of Individuality is, then, that by means of it we conceive the existence of individualities or entities; thus, *e. g.*, world—country—town—house, &c. &c. or, in moral notions (conceptions), God—eternity—love—generosity, &c. &c.

"In the former way of acting, Individuality is excited by the medium of the external senses; in the latter, by means of feeling and reflections."

III. *Mental Hygiene ; or an Examination of the Intellect and Passions, designed to illustrate their Influence on Health and the Duration of Life.* By WILLIAM SWEETSER, M.D., late Professor of the Theory and Practice of Physic, and Fellow of the American Academy of Arts and Sciences. Reprinted from the American Edition. Edinburgh : Maclachlan, Stewart, & Co. London : Simpkin, Marshall, & Co. Royal 8vo., pp. 60. 1844.

The republication, at a low price, of this excellent work, renders it so accessible to all classes of readers, that we need not continue the analysis of its contents, which was begun in last number. The treatise deserves to be cordially recommended both to the general and the phrenological reader ; for, although it does not appear whether or not Dr Sweetser is a disciple of Gall, his views concerning the influence of the body on the mind, and of the various mental states on the body, are generally sound and well expressed, and their practical importance is forcibly inculcated. His classification of the passions is susceptible of improvement ; but, as he does not pretend to minute accuracy on this subject, and as, in the present state of mental philosophy, a perfect classification is unattainable, we refrain from entering into details. Another subject of remark, to which the author may find it worth while to attend in preparing a second edition, is, that he has sometimes introduced, in illustration (not, we presume, by way of *proof*) of the principles expounded, apocryphal anecdotes from Herodotus and other ancient writers. This is not quite judicious in a scientific work, especially as numerous authentic instances of the same kind, of which indeed Dr S. adduces many, may be found in the works of the moderns. We suggest, also, that the book may be improved by a less frequent use of the superlative degree.

In treating of the effects of fear on the body, Dr Sweetser says :—" Partial tremors, as of the limbs, or a general shuddering and shaking, and chattering of the teeth, as under the effects of extreme cold, or in the first stage of a paroxysm of intermittent fever, are also common phenomena. It is worthy of remark here, that these same symptoms, when the result of morbid physical states, are apt to be associated with an unnatural degree of timidity or apprehension. Indeed, I feel well satisfied that we possess less courage when chilled and shivering under the influence of cold, than when the surface is warm and comfortable, and the blood circulates freely through its extreme vessel." In like manner, he notices that, just as grief and melancholy disturb the functions of the liver and stomach,

so do biliary and gastric derangements, in their turn, produce these disagreeable mental states. "That the condition of the biliary secretion has much to do with the mind's tranquillity—that unhealthy, redundant, or obstructed bile, at the same time that it gives its gloomy tint to the complexion, may imbue the moral feelings with an equally dismal shade—will, in our present state of knowledge, hardly be contested. Thus, the common expression, 'to look with a jaundiced eye,' means, as every one must know, to view things in their sombrous aspect. We readily conclude, then, that disordered or diseased states of the liver may be comprehended among the physical causes of despondency of the mind. Thus do they engender the same character of feelings of which they themselves are also begotten." Again: "A morbid or unnaturally irritable state of the inner or mucous coat of the stomach will oftentimes transmit such an influence to the mind as to deaden all its susceptibilities of enjoyment, and oppress it with the severest despondency. Now, such an unhealthy character of this inner surface of the stomach being one of the necessary results of an habitual indulgence in exciting and inebriating drinks, the danger of a recourse to it, with a view to elevate the dejected spirits or drown the remembrance of sorrow, will easily be understood. If the mental depression arises from a physical cause, such injudicious stimulation will be sure to augment it, and if from a moral, a physical one will thus be speedily added to it. There is, indeed, no moral gloom more deep and oppressive than that suffered by the habitually intemperate—whether in the use of distilled spirits, wine, or opium—in the intervals of their artificial excitement. In delirium tremens, a disease peculiar to the intemperate, the mind is always, even in its lightest forms, filled with the most dismal ideas, and a propensity to suicide is by no means unusual. The opium-eater, too, when not under his customary stimulus, generally experiences the most terrible mental sufferings." "Low, marshy, malarious situations, where intermittent fevers, or agues, as they are more familiarly named, abound, through some poisonous influence which they generate, so act on the physical constitution as to weigh down all the moral energies, and fill the mind with the darkest gloom. In observing the inhabitants of such unhealthy spots, even when they have become so seasoned to their infection as to resist the fevers, or acute effects which it produces in strangers, we cannot but be struck with their sallow, sickly, and emaciated appearance, and the deep melancholy of their countenances, a melancholy which the cheerful smile of more wholesome airs is rarely seen to relax. The nervous system, the liver, and other organs

engaged in the function of digestion, almost always, in such situations, labour under more or less obvious derangement. And here we have yet another illustration of the remark which I have before made, namely, that the like physical states which are generated under the operation of grief, will also, when arising from other causes, tend to awaken this painful passion. Thus, the same spare, nervous, and bilious condition that distinguishes the gloomy inhabitants of the unhealthy sites to which I have just referred, is also witnessed in those who have long suffered under severe mental afflictions."

These remarks illustrate the principle on which (as noticed in previous articles in this volume of our Journal, pp. 20, 266) Mr Braid endeavours to explain the phenomena of Phreno-Mesmerism.

In conclusion, we remark, that by the knowledge of such facts as those which abound in Dr Sweetser's work, an incalculable amount of misery and disease might be warded off. To those who have the care of children, the value of such a treatise can hardly be overrated.

IV. *Brief Reports of Lectures delivered to the Working Classes of Edinburgh, on the Means in their Own Power of Improving their Character and Condition.* By JAMES SIMPSON, Esq., Advocate. Edinburgh: John Johnstone. Glasgow: J. M'Leod. Royal 8vo, pp. 60. 1844.

These Reports are stereotyped from the types of the *Edinburgh Weekly Chronicle*, in which they appeared during last winter. The chief purpose of the lectures was to explain and exemplify the uses and abuses of the mental faculties, and the good and evil results of these—a purpose which Mr Simpson executed with his usual felicity of style and amplitude of illustration, but, we regret to say, with so little direct reference to the organic conditions on which the mental operations depend, and so little open inculcation of Phrenology as the philosophy which he was in reality teaching, as considerably, in our opinion, to detract from their practical value. Nevertheless, much good may be done by the wide circulation of these cheap Reports among the working classes throughout the country; and readers of every rank will find in them many useful suggestions for the preservation of health, and the promotion of happiness. The following remarks, which accompanied the report of the first lecture in the *Chronicle*, are prefixed to the collection:—

"Eight years ago the columns of the *Chronicle* were enriched

with reports of popular lectures delivered by Messrs Combe, Simpson, and Drs Fyfe and Murray, to overflowing audiences, chiefly composed of working men. These lectures were much valued at the time, and we believe they have made a deep and salutary impression on all who heard them. The reports we were enabled to give of them, brief as they necessarily were, attracted a considerable degree of attention, and exercised, we have reason to know, a beneficial influence over the public mind. The time that has elapsed since then has produced many changes, and many grievous dissensions and misunderstandings between the different classes of society. Party spirit, in politics and religion, has raged with unremitting violence, and so divided man from man, and set one neighbour against another, that we had almost begun to fear that the love of philosophic truth, of social improvement, and of the kindly affections, was in danger of being extinguished among us. But if we required any proof of the groundlessness of such a fear, we should find it in the circumstance that the working men of Edinburgh retain so lively a sense of the value of the lectures we have referred to, and so strong a desire for mental culture and useful information, that three thousand of them have requested Mr Simpson again to step forward and enlighten them on the means of improving their character and condition. This is a most gratifying fact, and demonstrates strikingly the advancement that has already been made by so many of our industrious townsmen. Where the love of knowledge has been awakened, the ruder passions have ceased to reign, and the mind begins to develop the power of enjoying and diffusing real happiness.

"We need not say how deeply the public are indebted to Mr Simpson for his valuable instructions, especially when it is considered that they are given gratuitously. But he will not go unrewarded. No richer recompence can be received by the truly good man than evidence that his labours of love are productive of their natural fruits—the increase of virtue and happiness; and this reward we feel assured Mr Simpson will receive in full measure."

III. INTELLIGENCE, &c.

Dr Gall.—The portrait of Dr Gall which accompanies this Number was lithographed in Mannheim for the German Phrenological Journal, and copies were procured by us through the kind assistance of Mr Von Struve, the editor of that work. In order that good impressions might be furnished, the figure was redrawn on the stone after the copies for the German journal were thrown off. Dr Gall was twenty-eight years

of age when the portrait was painted, and the engraving from which that now presented to our readers is copied, was given to Mr Von Struve by Dr Michael Castle, now of Stuttgart, who, in a letter to that gentleman, with which we have been favoured with a copy, mentions that, upon the occasion of his delivering a discourse on the merits of Gall, he received it from Mr Schwarz, American consul at Vienna, to whom it had been given by a friend. "With regard to the correctness of the likeness itself," adds Dr Castle, "I have been told by persons who knew Gall in his youth, that the resemblance is remarkable. Farther than this I can give no information."

In his journal, Mr Von Struve makes the following appeal to his countrymen, to which we earnestly trust they will duly respond:—

"Gall is known to have carried on an extensive correspondence with the most distinguished men of his age. A collection of his letters would certainly be highly prized by the public. Unless, however, strenuous efforts be made towards accomplishing this object *speedily*, it is to be feared that, after the death of many of his correspondents, these valuable remains of our great countryman may be irretrievably lost. I therefore take the liberty to make the following requests:—1. That all those individuals who corresponded with F. J. Gall will have the kindness forthwith to inform me of the number and contents of his letters in their possession. 2. That persons who know of such letters being in the possession of the representatives of Gall's deceased correspondents, will inform me where they may be found. 3. That any one who may be in a condition to furnish a detailed catalogue of Gall's correspondence, will be so good as forward such to me.

"Gall spent the best years of life in his native country; for he was forty-nine years of age when he was compelled to leave it. He exchanged letters with Hufeland, Sommering, Walther, Prince Metternich, and others. The last two are still alive. I solicit them, as well as all the other friends and admirers of Gall, to communicate whatever they possess from his hand, and to permit its publication for the general benefit of Germany.

"The German press is solicited to give this request the widest possible circulation. G. V. STRUVE."

"MANNHEIM, 30th October 1843."

Lectures on Phrenology.—On 18th April, Mr M. B. Sampson gave the first of a course of three lectures, at a new institution in the neighbourhood of Islington, to an audience of nearly 300 persons.—In May, four lectures were delivered by Mr E. T. Hicks, at Derby, to "numerous and highly respectable audiences," as we learn from the *Derby Reporter*. We are sorry to observe that the advertisement of Mr Hicks, in that paper, is headed in this quackish fashion—"Mesmerism Proved!! and Phrenology Demonstrated!" Such injudicious and unphilosophical pretensions, put forth in such a style, cannot fail to lower the advertiser in the estimation of rational men.—At Mansfield, Mr Thomas Beggs of Nottingham lately gave six lectures to about thirty intelligent working men, who, having formed themselves into a class for the study of Phrenology, invited him to deliver the course, to which strangers were admitted at a small charge. We learn that the results were very satisfactory, "several additions being made to the class, and a new impulse given to those already engaged in the study. Mr Beggs, who has already given two courses of lectures on Phrenology gratuitously in Nottingham, has been requested by a body of his fellow-citizens to deliver another course as early as possible."—Mr Donovan delivered six lectures at Alton, Hants, in April, and three at Basingstoke in May.

Phreno-Mesmerism.—This subject continues to excite much interest in various parts of England, and public exhibitions of the phenomena are still frequent. Dr Owens has been lecturing in various parts of Staffordshire, such as *Newcastle-under-Lyne*, *Stone*, and the *Pottery Mechanics' Institution*. In April and May, Mr Spencer T. Hall delivered courses of lectures at *Ripon*, *Sunderland*, *South Shields*, and probably elsewhere. The *York Herald* of 4th May, noticing his lectures at Ripon, states that "the contrast between his first reception and farewell was most striking. At the former he was harassed by querulous objections, and cross-examined by the chairman, even before he had an opportunity of giving his evidence. On the latter occasion, he had for his chairman Mr Smith, a medical gentleman of the city, who has convinced himself, by experiment, of the truth of Mesmerism; whilst, in the most complimentary manner, a vote of thanks to the lecturer was proposed by Mr Bruce, surgeon, seconded by Mr Thomas, surgeon, and passed by a large and respectable audience without a single dissentient, many expressing a wish that he might shortly visit the neighbourhood again." The same paper contains a long and excellent letter from Mr Alfred Smith, surgeon, of Ripon (the same gentleman, we presume, who acted as chairman), urging the medical profession to investigate the claims of Mesmerism with candour, diligence, and caution. A similar appeal has been made to them by Dr W. B. Carpenter, of Bristol, the well-known author of some valuable works on Physiology (see *Medical Times*, 4th and 18th May, p. 99, 139); and we observe it stated that a committee of medical gentlemen in Halifax have given an opinion to the same effect. On 1st April, Mr Myles Pennington delivered a lecture on Mesmerism at *Preston*; and Mr Hicks has lectured at *Derby*, *Lichfield*, &c. The newspaper-discussion at *Wolverhampton*, mentioned in our last Number, was continued during April, Dr Owens and Mr W. R. Lowe being the writers on the phreno-mesmeric side of the question: we think the former would increase the force of his arguments by adopting a more condensed style of writing.—In a letter, dated *Devizes*, 6th May, we are informed by John James Fox, who seems to be a member of the Society of Friends, that Mr H. Lundie had recently made some very interesting mesmeric experiments in that town. The phenomena were first exhibited in two individuals who usually attend Mr L., but they only excited scepticism, until J. E., a youth in Mr Fox's establishment, and in whose honour he has perfect confidence, was mesmerised, and exhibited the usual manifestations. Two medical men who, at the last lecture, tested the lad's pulse before and while he was in the mesmeric state, declared that, whether Phreno-Mesmerism was true or false, certainly the pulse was at 75 before mesmerising, and rose to 150 during the continuance of the trance—a result which no man could of himself produce, by any means, in so short a time (about fifteen minutes), or in any time whatever. Mr Fox adds, that the youth is willing to be mesmerised by any respectable individual; and invites such as have the power of mesmerising, to avail themselves of the opportunity of testing Phreno-Mesmerism. He also mentions that J. E. "knows nothing whatever of Phrenology, neither had he a private interview with the lecturer; so that there could be no collusion." The case would have been more valuable had Mr Fox been able to state that no phreno-mesmeric experiments were previously performed in presence of the youth. In mesmerised persons the memory is so quick and accurate, that to such of them as have witnessed the phenomena, a touch on the head frequently suggests the manifestation of the faculty whose organ is beneath the part, or any other faculty which the patient may have been led to associate with the lo-

cality touched ; and it may be displayed accordingly.—Mr Charles Bray of Coventry has sent us the details of a case where the mesmeriser and patient were entirely ignorant of phrenological terms, and incapable of associating particular faculties with pressure on the several regions of the head. And we may add, that our excellent scientific friend Dr William Gregory (who has just been appointed to the Chemical Chair in Edinburgh University), has satisfied himself, by experiment, of the reality of the phreno-mesmeric phenomena, and the insufficiency of volition to explain all the cases.—In London, there has lately been much discussion of a case of alleged clairvoyance, exhibited by Mr Vernon, who, at a meeting of the London Medical Society on 22d April, was denounced by several speakers as an impostor. On this subject we refer to the *Medical Times* of 27th April, p. 80 ; 4th and 25th May, pp. 97, 162 ; and 1st and 8th June, pp. 188, 207. Imposition, on the part of the girl at least, has been completely proved. As for Mr Vernon, we have had no confidence in him since he tried, some years ago (see *ante*, xiv. 290), to smuggle into our journal, under a feigned name, a communication written by himself in praise of his own phrenological lectures and manipulations.

Contemporary Journals.—In February last *The People's Phrenological Journal* came to an end, the sale being too limited for its support. In its concluding Number, the editor announced his intention to publish, on 1st April, No. I. of a monthly journal, to be entitled *The Ethno-Phrenologist*, but we are informed that it has not yet made its appearance.—*The American Phrenological Journal*, of which no later Number than that for December 1843 is before us, has ceased to deserve the name of a "journal," consisting, as it does, merely of monthly parts of a work by Mr O. S. Fowler, on the hereditary transmission of moral and intellectual qualities.—Mr Combe has brought us from Mannheim (which he visited in returning from Italy) the 4th, 5th, and 6th Numbers of the *German Phrenological Journal*, our own copies of which, forwarded through the booksellers, have not yet arrived. They reached us so lately, that it is impossible to insert a notice of their contents in our present Number. Meantime, we are happy to say that the work continues to be conducted with unabated ability and zeal.—Mr La Roy Sunderland, late editor of *The Magnet*, a monthly New York journal, announces, that having been cheated by his publisher, P. P. Good, his connection with it ceased after the publication of No. VI., and that all subsequent Numbers have been edited by Mr Good himself, without any mention being made of the change. "Nor is this," says Mr Sunderland, "the worst deception which he has imposed upon its readers. He has selected articles from newspapers and old books, and inserted them as *original*, and some of them he has altered, to give the impression of their having been matter written expressly for the *Magnet*. (See the first Number of what he calls his 'New Series.')

And those who know no better, he has left to suppose that that matter was inserted by myself. Indeed, scarcely half of the matter in the last four Numbers is under the appropriate heads, so profoundly ignorant is P. P. Good of the subjects on which he has, in this surreptitious manner, undertaken to enlighten the public!" Having observed in the *Magnet* an article borrowed, without acknowledgment, from our own pages, and altered so as to appear original, we rejoice to learn that Mr Sunderland is not the party chargeable with a disreputable practice which is too common in America.—Our limits compel us to defer a notice of recent Numbers of the British Medical Journals. The chief article of phrenological interest which has lately appeared in

them is a paper in No. 2. of the new series of the *Lancet* (March 30, 1844), entitled, "The Duality of the Mind proved by the Structure, Functions, and Diseases of the Brain, by A. L. Wigan, M.D." Dr Wigan's theory, which is less novel than he supposes, has been a good deal discussed in the subsequent Numbers of the same periodical (particularly by Dr Davey on 15th June), and at meetings of the Westminster Medical Society; but as Dr. W. announces the intention to publish soon a volume fully stating the grounds of his opinions, we shall, after seeing the work, be better qualified to judge of their merits than at present.—In *The Edinburgh New Philosophical Journal* for April 1844, p. 296, there is a paper "On the Physical Characters of the Esquimaux," by Richard King, M.D.; read before the Ethnological Society, London. The writer accuses Dr Prichard of describing inaccurately the general shape of the Esquimaux skull.—Of the *Zoist* more than two thirds of the April Number is filled with cases of cures by Mesmerism. In the leading article, the tendency of education to lessen the amount of crime is illustrated by reference to well known statistical facts.

London Phrenological Society.—On 6th December 1843, a paper was read by Mr Phineas Deseret, of Edinburgh, on the function of the organ of Language.—*December 20.* Dr Elliotson laid before the Society for examination a cast of the head of the late Sir James Shaw, Bart., Chamberlain of the city of London; and afterwards a cast of the head of the late Duke of Sussex. The former head presented a fair, but not remarkable, development of forehead; with an excellent moral surface; a very large development of the organs of Love of Offspring and of Attachment; with a very moderate development of Amativeness, Cautiousness, Destructiveness, Acquisitiveness, Combativeness, and Self-esteem. It betokened a most amiable, mild, affectionate, and truly respectable character. The cast of the head of the Duke of Sussex presented a large development of the lower organs of the brow.—*January 17.* 1844. Mr Deseret read a paper on the organ of Marvellousness or Wonder.—*February 7.* Dr Elliotson exhibited a cast of the head of a boy for the opinion of the members. The organs of Secretiveness and Acquisitiveness were pronounced to be very large; which agreed with his character of an inveterate liar and thief.—*February 21.* An address was read by Mr Thomas Uwins, containing some remarks on the case of the boy, a cast of whose head was exhibited at the preceding meeting, and communicating the result of mesmeric experiments made to increase the activity of Hope and certain other cerebral organs in a hypochondriac patient. He expressed himself satisfied that the result clearly proved a decided change in the moral condition; and concluded thus:—"You, sir, will perceive the inference I am about to draw from these, to me, most interesting facts. Could not the child whose cast you presented to us last meeting be so operated on? Will not repeated transient effects become permanent? Is not this the treatment indicated? Might not Mesmerism be brought in medically to assist other courses of education and training? For answers to these questions I look to you, sir, and to other gentlemen whose profession leads to the consideration of such cases. My time is occupied in other pursuits. I wish it always to be understood that I come to these meetings not to teach, but to learn."—*Abridged from the Zoist*, April 1844.

Phrenology and Emigration.—We understand that some London mechanics are forming an emigration society on the co-operation principle, and that they have determined none shall be admitted members without

having previously undergone an examination with respect to their cerebral organization.—*Ibid.*

The Phrenological Association—Mr Prideaux's Paper on the Excitation of the Cerebral Organs during Sleep-waking.—We have received the following letter from Dr Moore and Mr Cull, Secretaries to the Session of the Phrenological Association held in 1842:—

SIR,—In an article by Mr Prideaux, which appears in the April No. of the Phrenological Journal, p. 158, "On the fallacies of Phreno-Magnetism,"—we, in common with other of your readers, were startled by a great inaccuracy of statement, which is made on the authority of Dr Engledue, and which is contained in the subjoined extract:—

"I drew up a short paper for the purpose of shewing that the phenomena displayed afforded no evidence in support of the localities of the cerebral organs. Leaving town myself immediately after the delivery of the address, I intrusted my observations to the care of Dr Engledue, who read them at one of the meetings of the Association during the session."

The perusal of the above, published April 1844, has first informed the secretaries to the session in 1842, of the existence of a paper by Mr Prideaux. The statement that the paper was read at one of the meetings is incorrect: and as, to us, it appears calculated to impugn the accuracy of the minutes of the Committee during the session that we filled the office of secretary, we feel called upon to notice it publicly.

We do not oppose the assertion of Mr Prideaux by a counter-assertion of our own, but by the conclusive authority of the official records of the Association. In order to appeal to those records, Mr Cull waited on Mr Symes (to whose custody the books of the Association were transferred by us in 1843, and with whom they now remain), and by his courtesy was permitted with him to examine the minutes of the Committee. No record of any paper whatever by Mr Prideaux was found; and no minute of any paper ordered to be read by Dr Engledue, save the introductory address, exists.

It has been privately suggested to us, that the paper may have been read and omitted in the records. We therefore deemed it advisable to open a correspondence with gentlemen who were present, officially and otherwise, at the several meetings of that session. And the result is, an abundance of epistolary testimony affirming, that no paper by Mr Prideaux was read at the Association, as stated by him on the authority of Dr Engledue. We are, Sir, your obedient servants,

JOSEPH MOORE, M.D.

RICHARD CULL.

London, June 1. 1844.

The late Dr Barlow of Bath.—The medical profession has lately sustained a severe loss in the death of this distinguished and philanthropic physician, and able and zealous phrenologist. He died on 2d April 1844, of disease in the kidneys, after several years' indifferent health. The following memoir, contributed by "One of Dr Barlow's Intimate Friends," to a late Number of the *Provincial Medical and Surgical Journal*, will be perused with interest by many of our readers. Some portions of it, relating to medical topics, are here omitted.

"Edward Barlow was born at Mullingar, county of Meath, Ireland, on the 25th of June 1779. His father was a distinguished practitioner at that place, and died August 9, 1825, at the advanced age of 81. The *Westmeath Journal*, in announcing his death, stated that 'he was for fifty-six years surgeon to the County Infirmary, and for the greater part

of that period, until years and infirmity limited his exertions, in possession of the almost undivided medical practice of the surrounding country—a sure proof of the zeal and ability with which he exercised the arduous duties of his professional calling.

“Dr Barlow commenced his professional education under the guidance and direction of his father, who, from an early period, intended to bring up his son to the medical profession, in the expectation that he would succeed to his private practice and public appointment at the Infirmary. In furtherance of these objects, and to enable him to become a licentiate of the Dublin College of Surgeons, he was bound apprentice to his father, and after the expiration of his apprenticeship, attended the various lectures and hospitals in Dublin, Edinburgh, and London; at the latter place he was a pupil of Clive and Cooper, at the Borough Hospitals. He became a licentiate of the Dublin College of Surgeons in May 1801, and graduated at Edinburgh in June 1803.

“He resided in Dublin, and practised as a surgeon till 1807, when he came to Bath, and commenced that career as a physician, which soon led to celebrity and distinction. He cultivated medical science with zeal and assiduity, and communicated to the public the result of his reflections in various writings. He became physician successively to the Bath City Infirmary (previous to its junction with the Casualty Hospital, when the charities formed the United Hospital), and to the General Hospital. His exertions, however, were not limited to objects connected with his profession. He was the zealous and eloquent advocate of every project that was calculated to extend knowledge, promote humanity, or in any way to be useful to his fellow-creatures. He was one of the original founders of the Literary and Philosophical Institution, and ever afterwards an active member of its Committee. He was chiefly instrumental in establishing a Phrenological Society in Bath, and was always ready to furnish a paper at their meetings, when no other contributor could be found. He was a zealous supporter of the Humane Society. Amongst the poor who applied as out-patients at the United Hospital, he often found that great misery arose from want of proper clothing, and to remedy, in some degree, this evil, he formed a charity for the purpose of distributing flannel waist-coats to such objects as appeared likely to be benefited by them. This charity is now attached to the Hospital, and has been productive of great comfort to many poor persons who were suffering from rheumatism.

“Indeed, it is not saying too much in praise of Dr Barlow, to assert that his benevolent feelings led him to support with his pen, his purse, and his personal exertions, every object of public charity and utility.

“It is scarcely necessary to remind the readers of this journal how warmly he was interested in the prosperity of the Provincial Medical Association. We have all admired his zeal, and been delighted with the eloquence with which, at our annual meetings, he always advocated every measure that was likely to promote the welfare of the Society, or advance the honour and respectability of the profession. At our future assemblies his absence will indeed be deplored, and we shall all feel that we have sustained a loss which cannot be easily supplied.

“Dr Barlow’s private practice was considerable, as a consulting physician, but not so extensive in regard to general practice as might have been expected from his talents and his zeal, united as they were with the advantage of being connected with two hospitals, both of which afforded ample experience, and presented favourable opportunities of observing disease. There can be no doubt, however, that if he had desired more extensive private employment he might have obtained it; but he loved

the science, and disliked the trade of medicine. He was sufficiently affluent to be satisfied with a limited income from his professional exertions, and a belief generally prevailed that professional emolument was a matter of indifference, or, at least, of secondary importance, to him.

"In all the social and domestic relations of life he was most exemplary. He was a kind husband, an affectionate father, and a sincere friend. His manners were at all times reserved, but he was generous and benevolent. His habits were retired, and he was not fond of much society, but no one could receive his friends with greater hospitality and courtesy. He had a deep sense of religion, which he manifested, not so much by the observance of austere forms, as by a conscientious discharge of all the duties of life. His health began to decline about two years before his death, when he experienced a severe domestic calamity, from the shock of which he never recovered.

"The governors of the Bath Hospital met on the 1st of May, to elect a successor to Dr Barlow, and before they separated the following resolution was unanimously passed, the whole body of governors simultaneously rising, as a mark of respect to the memory of one who was so universally and deservedly esteemed:—'That this court desire to record the expression of their unfeigned sorrow at the decease of the late senior physician, the lamented Dr Barlow, and their gratitude for the services which, during the period of twenty-five years, he so cheerfully and efficiently rendered. Whether they regard his skill, his humanity, his attention to the sick and suffering, or his conduct as a member of the honourable profession to which he belonged, they feel that his departure has left a blank which will not easily be filled.'

"Dr Barlow has been long known to the medical profession by the extent and value of his writings, which are characterised by elegance of composition and copiousness of illustration. He wrote with great fluency and remarkable rapidity; such, indeed, was his ready command of language, that he appeared to have the power of exhausting every subject on which he treated, almost without an effort. This facility of expressing his ideas led him probably to an early, as well as a frequent use of his pen, for his first contribution to medical literature, I find, was written while he was a student. It is impossible to enumerate all Dr Barlow's publications, as, besides his more important works, he wrote in newspapers, and other periodicals, on various topics of local and temporary interest; but the following list contains, I believe, his chief medical productions. [We refer to our contemporary for the list, which includes—

"'History of a considerable Wound of the Brain, attended with singular circumstances, by Mr Edward Barlow, student of medicine at Edinburgh, from Westmeath, Ireland.'—*Duncan's Annals of Medicine*, for 1802.

"'An Essay on the Medical Profession, shewing its natural unity, and suggesting such arrangements as would render its condition conformable to just principles of Political Science, and conducive to the interests both of the profession and the public.'—*Edinburgh Medical and Surgical Journal*, vol. xxviii.]

"He wrote the following articles in the *Cyclopædia of Practical Medicine*:—'Antiphlogistic Regimen,' 'Congestion of Blood,' 'Determination of Blood,' 'Physical Education,' 'Gastrodynia,' 'Gout,' 'Pleurithora,' and 'Rheumatism.' The 'Essay on Physical Education' has been translated into most of the Continental languages, and is generally admired.

"Medical reform was a favourite theme with Dr Barlow throughout his life; and how zealously and ably he vindicated its cause, must be in the recollection of most of the members of the Provincial Medical Association. He was examined before the Parliamentary Committee, appointed, in 1834, to inquire into the state of the profession; but his evidence was never printed, having, I believe, been lost in the fire that destroyed the Houses of Parliament.

"I ought to have included in the list of his works one, which, though not strictly medical, is on a subject sufficiently connected with our profession to be deemed interesting to, and worthy of consideration by, medical men. I allude to a pamphlet which he published in 1825 (anonymously), and entitled '*An Apology for the Study of Phrenology*;' in which the author maintains its truth, and asserts its utility. Dr Barlow became a convert to this science at the amiable and lamented Spurzheim's first visit to Bath in 1814, and was ever afterwards its zealous advocate. He was a regular attendant at the meetings of the Phrenological Society, during its existence, and read three papers on phrenological subjects before the members in 1840 and 1841.

"I must not, however, trespass further on your space. The tribute which I now offer to the memory of our departed friend is very inadequate to his merits, but it is written by one who was long and intimately acquainted with him; one who admired his talents, esteemed his virtues, and will ever sincerely lament his death. It was not my intention to give a complete history of Dr Barlow's life, and if this brief sketch of his character should disappoint the expectations of his friends, they may derive consolation from the assurance that his works have secured him a lasting fame with his profession, and that his memory will be held in grateful and honourable remembrance by his numerous friends in that Association, of which he was not only one of the founders, but one of its most useful, active, and eloquent members."

Dr Barlow's "*Apology for the Study of Phrenology*" was noticed in our third volume, p. 191, and his article on Physical Education in vol. viii., p. 37. A letter in vol. xvi., page 41, maintaining, in opposition to Dr Engledeu, that Materialism is not a doctrine of Gall, came from his pen: not having been written for the press, it was published anonymously. In an Address delivered by him at the First Anniversary Meeting of the Provincial Medical and Surgical Association, on 19th July 1833, published in the Transactions of the Association, he thus spoke of Dr Spurzheim and Phrenology:—

"The next death which I have to record, is one on which, if I was to yield to the impulse of my own feelings, I should dwell with deep and painful interest. In December, died at Boston, in the United States of America, Dr J. G. Spurzheim, the coadjutor of Dr Gall, and the able advocate and expositor of the doctrines which Dr Gall first promulgated. It would be out of place here to enter on any vindication of the science which these distinguished fellow-labourers established by evidences sufficient to carry conviction to every unprejudiced mind.

"Of the rancour with which it was early assailed, and of the puny endeavours still made from time to time to decry it through means of ridicule and abuse, I take little account, being well assured that its truths will survive, and be acknowledged, when its objectors shall have passed into oblivion. My own faith was no effect of raised imagination, but the result of calm and deliberate judgment; and, after two and twenty years of observation and reflection, it remains unshaken. However the doctrines of Spurzheim may be impugned, his personal merits will be readily acknowledged by all who ever had the happiness of

holding intercourse with him. With a vigorous intellect were combined moral qualities of the highest order, and dispositions the most amiable ; and it was impossible to know him, without blending with the admiration due to the profound philosopher, sincere esteem and the warmest affection for the man."

Phrenology in Germany.—Dresden.—On the 13th March 1844, Mr Gustav Von Struve commenced a course of eighteen lectures on Phrenology in Dresden. He was liberally supplied with the use of the large and valuable collection of phrenological casts, skulls, and preparations, belonging to the Royal Medical Academy (the property of the Saxon Government), to illustrate his subject ; and received every other necessary assistance and accommodation for the effective exposition of his views. At the opening of the lectures, the number of hearers was about 70, which increased to upwards of 130 ; including many of the most intellectual men of the medical and legal professions. The *Kölnische Zeitung* of 21st April 1844, adverting to the lectures, observes that "Mr Von Struve expounded, in a very precise and striking manner, the practical utility of the science ; which is the best mode of attracting public attention towards it. He shewed its importance to the teacher, to the physician for the insane, to the legislator and the judge, and to every private individual as furnishing him with the means of self-knowledge. He pointed out its utility to the lawyer, especially in relation to criminal legislation and prison discipline. He proposes to bring this last application of it under the notice of the great meeting of the lawyers of Germany, which will be held at Mayence this summer. In Dresden, his lectures have led to the formation of a phrenological society, of which Mr Noel is President. This society is occupied in researches, observations, and discussions on particular points of Phrenology, and its individual members are active in diffusing a knowledge of the science and its practical applications. Mr Von Struve rests Phrenology on the following grounds. (Here the well-known principles of the science are stated.) It will be obvious from this exposition, that the system goes much deeper than the 'Cranioscopy' of Dr Carus ; that it is a science of experience, in other words, the science of human nature." The Prussian *Stadts-Zeitung* of 17th April also notices the lectures, and describes Mr Von Struve as "particularly well calculated for diffusing a knowledge of Phrenology, by that inspiration which a deep interest in his subject creates ; by his exciting, free, clear, and impressive delivery ; by his firm reliance on the indomitable truth of Phrenology ; and by his confidence in its ultimate triumph, and its practical utility."

The prospectus of the Dresden Phrenological Society states, that "the objects of this Society are partly scientific and partly philanthropic. They will endeavour to advance Phrenology as a science, and to bring it into relation with other sciences and art. Proceeding from this point, they will aim at procuring for its established facts and results a due recognition and influence on education, legislation, and medicine." The Provisional Committee in Dresden are, "Gustav Von Struve, Honorary President ; R. R. Noel, President ; Arthur Von Langenn, Gustav Bløde, Dr Herz, Marschall Von Biberstein, and Dr Behse, Members of Committee."

While in Dresden, Mr Von Struve bestowed much of his attention in communicating to the Society a practical knowledge of the cerebral organs and of the temperaments, which excited great interest. The Provisional Committee drew up, and reported to the Society, which adopted with acclamation, and presented to him, a diploma or certificate in the

following terms :—" To Gustav Von Struve, the zealous inquirer in the fruitful field of Phrenology ; the eloquent teacher of a refined humanity, and of a mild spirit of legislation ; the worthy successor of Gall ;—the members of the Phrenological Society, founded by him in Dresden, dedicate this public Testimonial of their gratitude and esteem." It is dated Dresden, 12th April 1844.

Berlin.—In the spring of 1844, Dr Hirschfeld of Bremen delivered a course of lectures on Phrenology in Berlin. Dr Hirschfeld himself in a private letter writes, " You will receive accounts of my proceedings in Berlin. I have every reason to be satisfied with the results, and shall endeavour to maintain the ground there won for our science." We regret, however, that no detailed accounts of this course have reached us.

R. R. NOEL, Esq., besides lending efficient assistance in the formation and conducting of the business of the Dresden Phrenological Society, is preparing a second edition of his work on Phrenology.

Dr SCHEVE of Heidelberg, Doctor in Philosophy, proposes to deliver lectures on Phrenology in that city during this summer. He is one of the ablest assistants of Mr Von Struve in conducting the German Phrenological Journal. We are informed that he means to devote his whole time and attention to Teaching as a profession ; and will receive boys into his house as boarders, whom he will prepare to enter any of the Universities. He will teach not only Greek, Latin, Arithmetic, Mathematics, and Geography, but the elements of natural science and the practice of the natural laws of health. His terms are L.40 sterling per annum, every charge included. We consider it proper to mention this school, as some of our readers may find it useful to know of its existence, and also because we have heard high recommendations of Dr Scheve's character, talents, and attainments. He is known personally to Mr George Combe, to whom reference may be made in regard to him. Mr Combe is now resident in Edinburgh.

Montreal Phrenological Society.—A Phrenological Society was established in Montreal about the end of 1843. One of the members, Mr W. B. Cumming, who had been commissioned by the Society to purchase books and casts in this country for their use, waited on us lately to give information about the Society, and request suggestions as to the best mode of conducting its proceedings, and the books which ought to be purchased. From what was stated by him, the Society seems likely to be useful and efficient.

London Ethnological Society.—The first anniversary of this Society took place on Saturday last, Mr G. B. Greenough in the chair. The council reported that the Society consisted of 157 members, that the donations had been very numerous, that a journal had been established, and that suitable apartments would at once be provided for the use of the members. Appended to the report was a list of the donations, with their respective donors, and an estimate for the year 1844, leaving a balance in hand of L.228. Owing to the severe indisposition of the President, Rear-Admiral Sir Charles Malcolm, the anniversary address emanated from the Secretary. It commenced with an historical account of the remains of nations long since extinct, and of those since the historic age commenced. A description of the origin, design, incipient labours, and prospective efforts of the Society then followed, and lastly was given the progress of Ethnology during the past year, in the respective countries of Asia, Africa, America, West Indies, Australia, and the Islands of the Pacific and Indian Archipelago, &c. The officers elected by ballot were—

President: Rear-Admiral Sir Charles Malcolm.—Vice Presidents: The Archbishop of Dublin, Hon. Mountstuart Elphinstone, G. B. Greenough, Esq., J. C. Prichard, M.D.—Treasurer: Samuel Duckworth, Esq.—Secretary: Richard King, M.D.—Councillors: William Aldam, Esq., M.P., Sir Benjamin Collins Brodie, Bart., Sir James Clark, Bart., M.D., Thomas Hodgkin, M.D., Walter K. Kelly, Esq., W. Elphinstone Malcolm, Esq., Thomas May, Esq., Joseph Legg Postlethwaite, Esq., Andrew Smith, M.D., James Augustus St John, Esq., Bayle St John, Esq., W. Holt Yates, M.D., Beriah Botfield, Esq., M.P., William Clift, Esq., Joseph Fletcher, Esq., Captain Grover, Major W. C. Harris, Sir Samuel Rush Meyrick, Anthony Todd Thomson, M.D., R. W. Rothman, M.D., James Whishaw, Esq.—*Medical Times*, June 1. 1844.

Prizes for Essays on Insanity.—The Lord Chancellor of Ireland has declared his intention to give ten guineas yearly, during the next ten years, for the best essay on a subject connected with the treatment of mental disease, to be selected alternately by the College of Physicians and College of Surgeons of Ireland, and the prize to be awarded by the council of the college by whom the subject was chosen. The first turn to belong to the College of Physicians.—*Dublin Medical Press*.

Proposed People's College at Nottingham.—To the Editor of the Phrenological Journal.—Sir, It will no doubt be interesting to your readers to know something of a scheme which has originated in this town, under the auspices of Mr George Gill, to provide a means of liberal and enlightened education for the people. Mr Gill having generously offered L.1000 towards the establishment of a People's College, several meetings of friends of education have taken place, and a committee has been formed to develop a plan, and prepare a prospectus. Prior to this, the Rev. R. S. Bayley of Sheffield, who has, at great personal sacrifice, established and conducted for a length of time a similar institution in that town, had been invited to give two lectures on education generally, and explanatory of his plan; and the delivery of these appears to have been attended with excellent results. The first lecture was given to a select number of friends in the Council Chamber; the second, after an interval of three weeks, in the Exchange Hall, to a large and highly respectable audience. He gave a lucid account of the People's College at Sheffield, and his method of teaching. The success has exceeded his expectations. The mode of instruction is generally excellent; and as he is indefatigable himself—being present every morning at half-past six, and in the evening at seven, besides discharging his pastoral duties—it stimulates his monitors to exertion and zeal. There are some defects in his mode of teaching—it is founded too much upon the system of emulation, and, for the class it aims to instruct, attaches too much importance to classical learning; but, as a whole, is a decided improvement upon our general plans of education. The lectures excited much interest, and seemed to direct the minds of the committee to the adoption of a similar plan on a more enlarged scale. The plan, as it now stands, comprehends physical, moral, and intellectual education—both as regards elementary and the higher branches of a good English education—on such terms as will bring its advantages within the reach of the humblest orders; conducted in such a manner, and established on such principles, as will enlist the confidence of the operative classes. It is contemplated to raise a building in one of the suburbs of the town, with a boy's school and a girl's school, and play-ground—a room for a lecture-hall, and several smaller rooms for a library and class-rooms, to be used in the day-time for

juvenile instruction, in the evening for adult education. The building is to be given over to the people in trust for ever, and, after the first outlay, is to be made a self-supporting institution; to be under the government of directors, composed of equal numbers of the middle and working classes, elected annually by the members. It proposes merely a secular instruction; teaching, in connection with the sciences and general literature and history, the principles of political economy, and man's public and private rights and duties. Mr John Rogers, the Rev. Mr Fernyhough, and myself, are now engaged in preparing a detailed plan for publication.—I am, &c.

THOMAS BEGGS.

Nottingham, June 9, 1844.

Pauper Lunatics in Scotland.—The Report of the Commissioners on the Scottish Poor Law, just published, contains the following suggestions:—

"It is desirable that the accommodation for lunatics should be increased, either by the building of additional asylums, or (which we deem a preferable plan) by the enlargement of already existing establishments. We hold it to be a matter of considerable importance, that the parochial boards should take measures to send insane paupers to an asylum immediately on the nature of their disease being ascertained. The cost of board at an asylum being greater than that for which they might otherwise be maintained, affords a strong temptation to conceal their real condition; and it may be feared, that in any legislative measure which may be brought forward, unless a penalty be imposed for non-compliance, some difficulty may be found in enforcing obedience to the law.

"We recommend, that where an insane person is in the receipt of parochial relief, it shall be imperative on the managers of the poor to send such insane person forthwith to a lunatic asylum, unless authorised by the Board of Supervision to treat him otherwise."

Characters of the Egyptian and Negro Races.—Dr S. G. Morton (On the Form of the Head, and other Ethnographic Characters of the Ancient Egyptians; in the Proceedings of the American Philosophical Society, Nov. 1842), has made observations on one hundred crania of ancient Egyptians, obtained at seven sepulchral localities, from Memphis, in Lower Egypt, to Deboud in Nubia. He classes them as, 1. *Arcto-Egyptians*, including the purer Caucasian nations, as seen in the Semitic tribes of Western Asia, and the Pelasgic of Southern Europe. 2. *Austro-Egyptians*, in which the cranium blends the characters of the Hindoo and Southern Arab; which people, the author thinks, were ingrafted on the original population of Ethiopia, and thus gave rise to the celebrated Meroite nations of antiquity. 3. *Negroloid*, in which the osteology of the crania corresponds to the Negro; but the hair, though harsh, is long and smooth, like the present Mulatto grades. 4. *Negro*.

The lines between these could not be exactly drawn. But in the one hundred skulls there might be reckoned fifty-six Arcto-Egyptians, twenty-eight Austro-Egyptians, six Semitic, seven Negroloid, one Negro, and two doubtful.

He deduces, therefore, 1. That Egypt was originally peopled by the Caucasian race. 2. That the great preponderance of heads like those of the purer Caucasians, suggests that the valley of the Nile derived its primitive inhabitants from one of these sources. 3. That the Austral-Egyptian or Meroite communities were in great measure derived from the Indo-Arabian stock; thus pointing to a triple Caucasian source for the origin of the Egyptians, when regarded as *one people* extending from

Meroe to the Delta. 4. That the Negro race exists in the catacombs in the mixed or Negroid character: that even in this modified type their presence is comparatively unfrequent; and that if Negroes, as is more than probable, were numerous in Egypt, their social position was chiefly in ancient times what it now is (in America), that of plebeians, servants, and slaves.—*Brit. and For. Med. Rev.* No. 33.

Tendency to Insanity at Childbirth.—Parturition and delivery are not uncommon causes of temporary insanity. In accusation of infanticide against the mother, temporary insanity may therefore be pleaded in defence, and in some instances be a perfectly valid ground of exculpation; the more especially as infanticidal mania is one of the most common forms in which temporary insanity manifests itself in connection with delivery. Rabbits, cats, bitches, swine, and some birds, are peculiarly subject to have the maternal instinct to protect, converted into a furious passion to destroy, their offspring. (See Pierquin, "*De la Folie des Animaux*," tom. ii.) Even in natural labour, especially in first births, the mental faculties are frequently affected. Moral or physical causes, either singly or combined, convert this unsettled state of mind into actual mania; and both causes are peculiarly apt to be in operation in unmarried mothers, against whom charges of infanticide are most common.—*Dr J. R. Cormack.*

Power of the Voice over Children.—It is usual to attempt the management of children either by corporal punishment, or by rewards addressed to the senses, or by words alone. There is one other means of government, the power and importance of which are seldom regarded. I refer to the human voice. A blow may be inflicted on a child, accompanied by words so uttered as to counteract entirely its intended effect; or the parent may use language in the correction of the child, not objectionable in itself, yet spoken in a tone which more than defeats its influence. Let any one endeavour to recal the image of a fond mother, long since at rest in heaven. Her sweet smile and ever clear countenance are brought vividly to recollection: and so also is her voice; and blessed is that parent who is endowed with a pleasing utterance. What is it which lulls the infant to repose? It is no array of mere words. There is no charm to the untaught one in letters, syllables, and sentences. It is the sound which strikes its little ear that soothes and composes it to sleep. A few notes, however unskillfully arranged, if uttered in a soft tone, are found to possess a magic influence. Think we that this influence is confined to the cradle? No, it is diffused over every age, and ceases not while the child remains under the parental roof. Is the boy growing rude in manner and boisterous in speech? I know of no instrument so sure to control these tendencies as the gentle tones of a mother. She who speaks to her son harshly, does but give to his conduct the sanction of her own example. She pours oil on the already raging flame. In the pressure of duty, we are liable to utter ourselves hastily to our children. Perhaps a threat is expressed in a loud and irritating tone; instead of allaying the passions of the child, it serves directly to increase them. Every fretful expression awakens in him the same spirit which produced it. So does a pleasant voice call up agreeable feelings. Whatever disposition, therefore, we would encourage in a child, the same we should manifest in the tone in which we address him.—*Church of England Magazine.*

Insanity in the United States.—Political strife, religious vagaries, overtrading, debt, bankruptcy, sudden reverses, disappointed hopes, and the

fearful looking-for of judgments which are to dissolve the natural elements of time, all seem to have clustered together in these times, and are generally influential in producing insanity. The hospitals are filling up most fearfully with the victims of these evils, and the predisposed and periodical are, in great numbers, plunged by them into the vortex of disease.—*Dr Woodward, in Tenth Annual Report of the Trustees of the State Lunatic Asylum at Worcester, Massachusetts, Dec. 1842.*

Tendency to Suicide.—In some families there is a strong natural propensity to suicide, no love of life, and no firmness to bear the calamities incident to it. One patient under our care had twenty male relatives, more or less nearly connected with him, who had committed suicide. Suicide is also contagious or epidemic. In institutions for the insane, there are periods when we have great solicitude on this account, and other periods when we have comparatively little. In the community such cases rarely occur alone. Suicide is often *impulsive*, the means at hand often excite an irresistible desire, or equally repulsive dread; in the one case the means are applied, in the other cautiously put away or avoided. I have often had patients give me knives, scissors, cords, &c., fearing they might be tempted to use them; yet sometimes these same individuals will secrete them about their persons or rooms.—*Ibid.*

Effects of Mental Emotions on the Body.—The newspapers give a striking instance, illustrative of the effects of mental emotion on the physical frame. An Irish girl, aged seventeen, who had borne a good character, was lately tried at Stafford for having stolen a gown and petticoat, and was sentenced to seven years' transportation. It is now believed that she merely took the goods to wear on some particular occasion, without any intention of keeping them. She heard of the judgment, and remained stupified: in twenty-four hours she was a lunatic, and is now in the infirmary, with no hopes of recovery. She was a remarkably handsome girl; but, from the period of her sentence, her health visibly declined, and her hair has actually turned grey.

Causes and Cure of Cretinism.—At a meeting of the Ashmolean Society, held at Oxford on 6th November 1843, Professor Daubeny read a paper on the Institution for the cure of Cretinism established near Interlachen, on the Abendberg, a mountain overlooking the lakes of Thun and Brienz. This institution originated in the benevolent views of its present conductor, Dr Guggenbühl, a physician of the Canton of Zurich, who has devoted the last eight years to the cure, or rather prevention, of this malady, for which purpose he has selected a situation above the elevation at which the disorder is ever endemic, and admits as patients only those in whom, from their tender age, the disease, though apparent, has not as yet fully developed itself. Great attention is paid not merely to the physical but also to the moral treatment of his patients; the physical means consisting of such diet and medicine as are calculated to strengthen the system and to stimulate the dormant energies, for which purpose use is likewise made of electricity. friction, baths, &c.; whilst the moral comprehend a course of discipline applied to all the senses, the organs of which require to be roused and trained to receive the impressions of external objects, as it frequently happens that the cretin is with difficulty made susceptible of any stimuli. The organs of speech also require to be trained, and here an extraordinary degree of patience and perseverance is needed on the part of the

conductor and his assistants. In the hope of aiding this benevolent scheme a subscription has been set on foot, not merely in Switzerland, but in other countries; and in England Dr W. Twining, of Bedford Place, has consented to be the medium of transmitting any sums which may be contributed. With regard to the causes of the lamentable condition of mind and body which constitutes cretinism, Professor Daubeny made some remarks; and after stating that it could not be attributed to the drinking of water derived from snow, or of that which was destitute of air, or of that which held calcareous matter in solution, he proceeded to shew that it was most probably produced by some form of malaria generated by the humidity of the low Alpine valleys, and modified in its character by the peculiar features of the climate, viz., the alternation of extreme heat with severe cold, the interception of the sun's rays, and the stagnation of the air—causes which may also produce a languor of constitution in the inhabitants, which deprives them of the power to resist the action of the *virus*. The difficulties which stand in the way of this hypothesis, the Professor conceived might be removed, if it were admitted that there are many forms of malaria as there are of epidemics, and that one form will produce a disease, which, like yellow fever, carries off the patient in a few hours, and another form will create a morbid habit of constitution, which may not become manifest till after the individual has been long exposed to its influence, and which, being transmitted to his posterity, shews itself first as goitre, and afterwards as confirmed cretinism. The error of medical men he contended to have been, that they imagined all epidemic and all endemic diseases to follow the same laws; whereas the truly philosophical method of proceeding should be to ascertain their peculiar modes of propagation, and to examine in detail the phenomena of each severally. Had medical men observed this rule, they would not have denied that cholera, for example, had been transmitted from one country to another by human contagion, because in its propagation amongst the inhabitants of a town or district, it did not follow the same laws as typhus or as small-pox; nor would they be disposed to question the malarious origin of goitre and cretinism, because the *virus* emanating from the soil of the Alpine valleys, in which these diseases are endemic, does not diffuse itself in the same manner as ague or dysentery. The statistics of cretinism are at present very imperfect, but it is hoped that the official returns ordered by most of the cantons will furnish more correct information, both as to the number of persons affected, who are estimated at not less than 5000 in Switzerland, and to the physical influences to which the disorder may be referred. —*Athenæum*, No. 839.

Dr Twining has lately published a work on Cretinism, and on Dr Gugenbühle's Institution for its cure. It is noticed in the April No. of the British and Foreign Medical Review, from which we extract the following sound observations:—"Although we have ourselves no cretins, yet practically this history may be useful, by enforcing the great lesson that cannot be learned too often; that hygienic means, pure air, exercise, and diet, are the important remedies for restoring muscular strength and nervous energy; that the development of the mental powers is greatly dependent on the due development of the bodily ones, and hence, in the weakly or debilitated, the general health must be improved, as the necessary preliminary step to education; that inattention in the child to the impressions of the various senses is often a symptom of deficient nervous energy, and one that is to be remedied by improving the bodily strength, and by awakening the attention of each sense by the assiduous and long-continued application of its own appropriate stimulus; and that

this 'malady of not marking,' this deficient power of attention, so injurious to the strength and usefulness of the mind subsequently, should be regarded not indolently as an almost hopeless mental defect, but as a disease, which requires for its cure or improvement bodily as well as mental remedies."

Contention with Difficulties.—You will see persons who seem to enjoy such advantages of birth and fortune, that they can have no difficulties to contend with, and some one of you may be tempted to exclaim, "How much is their lot to be preferred to mine!" A moderate experience of the world will teach you not to be deceived by these false appearances. They have not your difficulties, but they have their own; and those in whose path no real difficulties are placed, will make difficulties for themselves; or, if they fail to do so, the dulness and monotony of their lives will be more intolerable than any of those difficulties which they may make, or which you will find ready made for you. *Real difficulties are much to be preferred to those which are artificial or imaginary*; for, of the former, the greater part may be overcome by talent and enterprise, while it is quite otherwise with the latter. Then, there is no greater happiness in life than that of surmounting difficulties; and nothing will conduce more than this to improve your intellectual faculties, or to make you satisfied with the situation which you have attained in life, whatever it may be.—*Sir B. Brodie's Discourse on the Duty and Conduct of Medical Students and Practitioners.*

Books received.—The Zoist, British and Foreign Medical Review, and Medico-Chirurgical Review, for April 1844.—The Fallacies of our own Time. By Oliver and John Byrne. Part I, Fallacy of Phrenology. London, 1844. 8vo, pp. 79.—An Essay upon the Union of Agriculture and Manufactures, and upon the Organization of Industry. By Charles Bray. London: Longman & Co. 12mo.—Report of the Belfast Lunatic Asylum for 1844.—Phrenologische Analyse des Characters des Herrn Dr Justinus Kerner. Von Michael Castle, M.D. Heidelberg, 1844.—The Medical Times, weekly.

Newspapers received.—Wolverhampton Chronicle, April 3, 10, 17.—Spectator, April 6.—Preston Guardian, April 6.—Derby Reporter, May 3.—York Herald, May 4.—Sunderland Herald, May 17, 24.—Staffordshire Advertiser, May 25.

To Correspondents.—We have not yet been able to insert the communication of "An Old Subscriber."—That of R. C. has been received.—Mr T. B. Brindley is referred to the note on p. 287.—G. will oblige us by sending his address, and likewise procuring, if possible, an introduction from some party known to us, as it is desirable that we should have some means of judging of the ability of correspondents to observe and report facts properly, before inserting their communications.

Communications for the Editor (prepaid) may be addressed to Mr ROBERT COX, 25 Rutland Street, Edinburgh. Books or parcels, too heavy for the post, may be left (free of expense) with the London publishers, Messrs Simpkin, Marshall, & Co., Stationers' Hall Court.—Articles intended for the next following Number must always be with the Editor six weeks before the day of publication. Communications for the section of "INTELLIGENCE," and also Advertisements, should be in hand at least a fortnight before the same day. Charges for advertising:—Eight lines, 6s.; twelve lines, 7s. 6d.; every additional line, 6d.; half a page, 14s.; a whole page, 25s. Advertisements may be sent to the publishers in Edinburgh or London.

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NEW SERIES.—No. XXVIII.

I. MISCELLANEOUS PAPERS.

I. *On the Law of Copyright.* By GEORGE COMBE.

TO THE EDITOR.

SIR,—During the whole period of the recent controversy regarding the amendment of the law of copyright, I preserved silence; being aware of the tendency of self-interest to bias the judgment: but now when the question is settled, and is not likely to be revived during the lives of the existing generation of authors, I am desirous of placing on record the views which occurred to me on the subject, and which are in some respects different from any which I saw stated by the learned and able writers who took part in the discussions. As the results at which I have arrived seem to be directly, and, I hope, logically, deducible from the principles of Phrenology, they may, perhaps, not inappropriately find a place in your pages.

With the view of avoiding details, which now possess no interest, I shall proceed at once to the main point in dispute between authors and the public. The former claimed a perpetual property in their works; while the advocates of limited copyright opposed their demand, as unfounded in justice, and detrimental to the public interests. The opposition was maintained chiefly on two grounds, viz., *1st*, That property is the creature of the law; that authors, therefore, have no inherent right of property in their works; and that any extent of exclusive privilege of publication conferred on them by the legis-

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lature, is a boon for which they should be grateful, but which they had no right to demand : and, 2dly, That the public interests require that a limit should be set to copyright, otherwise authors, or their representatives, might capriciously withdraw the most valuable and useful works from circulation, or sell them at a price so extravagantly high that only the affluent could procure them.

The first argument, that authors have no inherent right of property in their works, appears to have been drawn from an opinion of Bentham, expressed in his Theory of Legislation. "Property and law," says he, "are born together, and die together. *Before laws were made there was no property* ; take away laws and property ceases." Phrenologically and philosophically, this dictum will not stand investigation. The organ and faculty of Acquisitiveness are inherent not only in man, but in many of the lower animals, and give rise in both to an instinctive sense of property. Lord Kames justly remarks, that man "is a *hoarding animal*, having an *appetite* for storing up things of use ;" and Chancellor Kent, of the State of New York, says, that "the *sense* of property is *inherent* in the human breast ; and the gradual enlargement and cultivation of that sense, from its feeble form in the savage state, to its full vigour and maturity among polished nations, forms a very instructive portion in the history of human society."* I need not enlarge on this proposition, because it is admitted by phrenologists in general, and is, besides, placed in the clearest light, and very ably supported in Mr Hurlbut's excellent lecture on "the Right and Moral Relations of Property," published in vol. xv. p. 97 of your Journal, to which I beg leave to refer.

Co-existent with this sense of property, we find in man organs of Conscientiousness, Benevolence, Veneration, and Intellect, and the corresponding mental powers, evidently intended to serve as guides to his general conduct, and, consequently, to the proper exercise of his acquisitive propensity. Human laws are, or at least ought to be, simply transcripts of the dictates of the latter faculties, enlightened by knowledge and experience. Laws may regulate, but cannot *confer*, any just rights. They may legitimately expound, define, and protect them ; but the moment human legislators assume the power of creating rights which nature has not previously bestowed, they commit injustice, and prepare the way for the introduction into society of insecurity and suffering.

Mr Locke observes, that "the labour of a man's body and the work of his hands, are properly his ;" and it seems no un-

* Kent's Commentaries, ii. 318.

due stretch of the proposition to affirm, that equally should the labour of his brain, embodied by the work of his hands, be his. The man who procures from nature, or obtains by purchase, certain raw materials, and by his own labour and ingenuity works them up into a machine or piece of furniture, is recognised by all civilized nations as the exclusive proprietor, in perpetuity, of the article produced ; and I am at a loss to discover on what principle it can be maintained that an individual, who, from original invention, or the current science and literature of his age, composes a book, should not possess the exclusive right, in perpetuity, to this product also of his labour and ingenuity. But it is argued, in the

2d place, that the public interests require that limits should be set to copyrights, otherwise authors or their representatives might capriciously withdraw valuable works from circulation, and thereby retard the progress of society in virtue and civilization. It is a very ancient, and a very sound maxim, that “*nunquam aliud natura, aliud sapientia dicit* ;” in other words, nature is so constituted that it is never necessary to rob an individual of his just rights, in order to promote the real advantage of society. The rights of the one, and the interests of the other, are in all cases compatible ; because the same great Being who laid the foundations of society in the nature of man, also conferred on the individual his rights ; and He is too wise and powerful to have rendered the two conflicting. A few elucidations will, I hope, shew that the case of copyright forms no exception to this general rule.

Books may consist, 1st, Of new ideas never before published to the world ; 2dly, Of the science and literature of past and present ages, mixed up with the author's own observations and reflections ; or, 3dly, Of the expressions of fancies, emotions, and passions, common to the human race, but invested with a peculiar charm by the author from the manner in which he embodies them. Newton's *Principia*, Harvey's work on the Circulation of the Blood, and Sir Charles Bell's *Dissertations on the Functions of the Spinal Nerves*, all of which communicated discoveries, may be selected as specimens of the first class ; Dr Neil Arnott's *Elements of Physics*, of the second ; and Campbell's *Pleasures of Hope*, of the third. I ask, then, what does a perpetual copyright in such works imply ? Not an exclusive proprietorship in the *ideas* and *reflections*, in the *fancies*, *passions*, or *emotions*, embodied in them ; but simply in the *author's peculiar mode of expressing them*—in that combination of words which he employs in order to convey them to the world. The ideas themselves, with all their consequences and applications, are left free as air to the public, although the

copyright of the work in which they are embodied be preserved inviolate to the author and his heirs. In our own day, Sir Charles Bell's discovery of the nerves of motion and feeling is transferred to every systematic work on physiology in Europe and America, although the copyright of the special essays in which he announced it still belongs to his representatives.

In regard to this class of works, then, there is no reason for maintaining that the public interests require that the discoverer's copyright should be limited.

In regard to the second class of books, I trust that I do no injustice to Dr Arnott in saying, that all the *principles* of science which enter into his treatise, pre-existed in the works of his predecessors, and that the peculiar merit of his composition, in my opinion, consists in the clear arrangement and perspicuity of elucidation of his propositions. If a perpetual copyright were granted to Dr Arnott, it is clear that the whole principles, or, in other words, the entire raw material of the work, would be left as free to the public as they were before he wrote. The only thing of which it would then be in his power to deprive them, would be the advantage of that *curiosa felicitas docendi*, in which his peculiar merit consists. But the talents which produced these results, were conferred on him, as an individual, by the Creator, when He gave him a peculiar conformation of brain, and a temperament characterized by fineness and activity; and it is difficult to discover on what principles of justice society can consistently deprive him of the advantages of that gift, or limit his enjoyment of it, while they respect the right of property in perpetuity in tables and chairs, made by the hands of far less talented and less accomplished men.

It is argued, however, that were the law to recognise a perpetual copyright in this work, Dr Arnott, or his heirs, might capriciously deprive the public of the instruction which it contains. In so far as regards the author himself, *nature* has given a pretty effective guarantee against such an unreasonable course of conduct; because a brain in which the organs of Benevolence, Conscientiousness, Love of Approbation, and Reflection, were so deficient as to render the individual capable of acting in such a manner, *could not* compose such a work. It is an extreme supposition that his heirs, or his assigns, might be so infatuated—it is supposing them to be insane, and, nevertheless, at large; but as such an occurrence might happen, I shall, for the present, assume that it actually does present itself, and inquire into the means which nature has provided for the protection of the public interests in such an emergency. They are simple.

The *ideas* contained in the work are public property; and all

that is wanted is a re-expression of them in such a form as may supply the void occasioned by the withdrawal of Dr Arnott's treatise. The power of composition depends on temperament and cerebral development, and nature has not confined those gifts to Dr Arnott. She has ushered into the world other brains and temperaments capable of running the race in which Dr Arnott has conquered ; and if his work were withdrawn, and the public needed his ideas, other individuals would speedily appear to supply the desired information. In point of fact, every author on science knows and feels that he holds his place *only until an abler brain* appear to wrest the laurels from his brow, and the bread from his mouth. He stands in a situation similar to that of the champion of England in the barbarous age of pugilistic combats. From the first hour of his publication to the last day of his fame, he is exposed to the challenge of every rival who chooses to enter the field with a view to occupy his place ; and as the public never fails, sooner or later, to award the prize to the highest merit, he holds his supremacy only while he is able to distance every competitor. The law which limits his copyright may despoil him of his bread, *before* such a rival has appeared. It may wrest from him, and deliver over to men of inferior capacity, the profits of his genius, at the very time when these men acknowledge that they cannot, by the exercise of their own powers, rival him in the career of public usefulness. If they *could* do so, there would be no need of infringing his rights ; for the publication of a treatise of higher merit would extinguish his work, and bring it to an end by natural dissolution. Even assuming that it might be centuries before a writer appeared, capable of producing such a clear, eloquent, and instructive elucidation of the principles of mechanical science as the work in question, this would only present stronger motives to Dr Arnott's representatives to enlarge its circulation ; but if they were so insane as not to do so, the inherent rights of all authors should not be violated because the representatives of one happened to be mad.

This argument applies to works of every kind, the substance of which consists of useful and practical ideas. The law which regulates patents for mechanical inventions, denies to all individuals the exclusive use of *principles* ; and, in like manner, no author claims, or can justly pretend to, an exclusive right to *particular ideas, facts, notions, or scientific postulates or inductions*. All that he contends for is the right of property in his own special combinations of the elements of thought—leaving to all the world the free privilege of making similar, or better, combinations of them, at their own discretion, and to the

buyers the right of preferring the works which they find to be most instructive.

The third class of publications embraces novels and poetry ; in short, all works of fiction and fancy. What would a perpetual copyright of such works imply ? It would confer no exclusive property in the emotions, incidents, and ideas, which form their substance ; but solely in the special combination of words by which these are expressed. On one occasion, Mrs Siddons happened to read one of the sublimest passages of Shakspeare, in the presence of the late Mr Sotheby, the translator of *Oberon* and other works. When she paused, he exclaimed, "Fine words ! grand words !" and after a few moments added, "Now, these words would not have occurred to me !" This remark renders the thing which would be covered by the copyright of such works clear as the noonday sun. It would be, as in the other instances already cited, only the special combination of words by means of which the ideas and emotions are expressed ; and the power of making this combination is a gift so peculiarly individual, that no species of property can surpass it in sacredness. It depends on a particular size and combination of cerebral organs, and a particular temperament, which impart strength, fire, refinement, and sublimity, to the products of the pen. If man can be said to create any thing, it is such works as those of Shakspeare, Milton, Byron, Scott, and Campbell. These are pure luxuries to the public ; they cannot justly be viewed as articles of necessity, because the ideas and sentiments contained in them may all be applied freely to general use. It is only the magnificent forms in which the inspired sons of genius have embodied them that are claimed as sacred ; and it appears to me to be a mere wanton exercise of power in the public to appropriate these, while a representative of the author is to be found alive on earth. The first and grand motive to the composition of such works is the conscious delight of creating them ; the second, the love of fame ; the third, the hope of doing good, directly or indirectly ; and the last and least, the expectation of pecuniary profit. Every age produces its own sons of genius ; and if, by such incredible suppositions as I have already allowed, the representatives of a Shakspeare or a Milton were to stop the sale of their works, no substantial interest of the public would suffer : for, even could the copies already issued be recalled, new minstrels would arise, who, writing under the same native inspirations, and guided by the lights of science and of a more advanced philosophy, would, in all probability, sing new songs of emotion and fancy, not inferior to those of their predecessors, in fire, energy, and refinement, while they might surpass them in purity, truth, and all the grander elements of thought.

With all deference, therefore, to the able individuals who have controverted the title of authors to a copyright in perpetuity, it appears to me that justice supports their claim, and that the interests of society are not exposed to the least danger in granting it. I am, &c.,

GEO. COMBE.

II. *On the Functions of Oxygen in Relation to Sleep and some of its concomitant Phenomena. Being the Substance of a Lecture delivered at the Royal Institution of Manchester.*
By LYON PLAYFAIR, Ph. D., F. G. S., &c. &c.*

The researches of Liebig have lately shewn that much information may be obtained regarding the processes of life in the animal economy, even when these cannot be subjected to direct experiment. Thus he has thrown considerable light on the phenomena of motion, by applying to their elucidation chemical laws, which analogy led him to expect would come into operation during the exhibition of these phenomena. But there are many other processes to which he has not devoted attention, but which seem to be explicable on the principles which he has so ably established. One of these—the subject of Sleep—is of great importance in its relations to medical practice, and yet very little is known of its cause, or of the chemical state of the body during its occurrence. Park, in his able Memoir “On the Causes of Sleep and Dreaming,” has pointed out the errors of those physiologists who preceded him in investigations on this subject; but he has not succeeded in doing more than establishing that certain physiological states of the body offer inducements to sleep, without shewing in what manner these contribute to the production of a quiescent state of the mind. He considers that the true causes of sleep are, the periodical diminution in the action of the heart, and simultaneous relaxation of the vessels of the brain, by which a slower though fuller circulation of blood through the brain is effected. But this merely describes a physiological state of the body, without shewing in what manner that state favours the quiescence of the mind. It, therefore, does not furnish an explanation of sleep, but merely points out the condition of the body which induces the repose of the mind. A more accurate definition is therefore desirable, in order that

* In this valuable paper, which is here reprinted, with the author's sanction, from the *Northern Journal of Medicine*, No. I. (May 1844), we have distinguished his leading propositions by italics, in order to facilitate the reader's apprehension of his views.—ED.

we may fully understand the circumstances which predispose to sleep, or occasion wakefulness.

I shall attempt in this paper to shew what chemistry seems to point out as the probable cause of sleep, and of its concomitant phenomena, more with the object of drawing attention to the subject, than with a view to insist on the perfect accuracy of the chemical definition. Chemists are too apt to fall into the sad error of converting the animal body into a laboratory; and therefore it is the duty of the physiologist to watch their steps narrowly, and prevent the evils which may arise from this error. On this account, I wish the views here given to be looked on with suspicion, and only accredited so far as they stand in unison with the acknowledged experience of medical practice.

The production of animal heat, according to the chemical view of the subject, is due to the union of oxygen with certain constituents of food, or with the tissues already formed. The carnivora depend wholly on the waste of the muscular tissues for the maintenance of the heat of their bodies; for the flesh on which they subsist is destitute of the unazotized organic constituents which are employed in supporting the proper temperature of the herbivora. Liebig has gone far to prove that the oxidation or waste of tissues in the carnivora, takes place only when the vital powers are employed in the execution of a movement required by the will—at a time, therefore, when they are not engaged in resisting the encroachments of chemical affinity, represented in the body by the oxygen contained in arterial blood. He has also shewn that the waste of the muscular tissues of the herbivora is effected under similar conditions. According to this theory, *there cannot be a movement in the body, without a corresponding waste (oxygenation) of matter in the organ subjected to motion.* The circulation of blood in the body, and the constant conversion of venous into arterial blood, afford an abundant supply of oxygen to replace that expelled from the system in the excretions.

Whilst the animal receives a quantity of food sufficient to restore the matter carried off by oxygen, there are exhibited no peculiar phenomena. But when it is deprived of food, as in the case of starvation, the changes of matter which occur in the system are very characteristic and worthy of attention. As the oxygen of the blood does not now meet food, with which to unite, it seizes upon the vital tissues themselves, and effects their destruction. The sufferer now becomes rapidly emaciated, and the urine is observed to contain an excessive quantity of the products which result from a waste of

the tissues. After this emaciation has proceeded for some time, the substance of the brain begins to yield to the destructive action, and, according to the rapidity of its waste excited action or delirious paroxysms ensue. Then the heart becomes enfeebled, the blood flows less quickly than it did before, the delirium subsides, and the patient dies from exhaustion. The phenomena observed in fever, and produced, according to chemists, by the entrance into the body of a substance already in a state of oxidation, either as a specific contagion, or as malarious matter, are precisely of a similar character. The point in its progress, bearing upon our present subject, is the increase of force in the involuntary organs, which in time passes over to the voluntary organs, and to the brain, producing, as in the former case, delirious paroxysms.

The great distinction between animal and vegetable life is volition. Vegetables, not being possessed of volition, are constantly engaged in increasing their fabric; and, therefore, when volition ceases in the animal, it is aptly said to have a *vegetative* life; for the vital powers are wholly employed in increasing the mass of the body. Sleep is the time when an animal becomes assimilated to a vegetable. Physiologists have shewn that the two most marked points during sleep are, diminished respiration and decreased circulation. They are agreed that, towards the evening, or at the lapse of a certain number of hours of work, *the involuntary organs—the heart and lungs—lose their wonted activity, and suffer a periodical diminution of action.* Blumenbach describes the case of a patient trepanned, in whom the brain was observed to sink during sleep and enlarge on waking, obviously arising from the circulation being diminished in the former state, and increased in the latter. *The consequence of this diminution is, that less oxygen is taken into the system.* Hence the proportion of venous blood is increased, and the waste caused by arterial blood diminished. The skull, being a close cavity, must contain a larger proportion of venous, if there be a diminution of arterial blood in the body. It is the latter alone which can cause the waste of the brain; for venous blood has already parted with its oxygen to materials met with in its course,

Matter in a state of inertia can never manifest the existence of a power. Its motion alone shews that some power is in operation. If the portion of matter used as the organ of manifestation be placed in such a condition as to render that manifestation impossible, there is no evidence to the external world that power was exerted. It has been perfectly demonstrated, that every manifestation of power in the voluntary

organs is accompanied by a change in the matter of which they consist. The changed matter being now unfit for vital structures is separated from the body. Müller and all other eminent physiologists are of opinion, that *the same change takes place in the brain—the organ of the mind*. In fact, the contrary opinion involves such violation of analogy, that its adoption, unless founded on the strongest grounds, is inadmissible. We look upon a spot attentively; it gradually waxes dimmer, until it finally disappears. We think upon a particular subject; in time our thoughts are less clear, soon they become strangely confused, and we are obliged to give up the attempt at concentration, by thinking on a subject quite different from that which first engaged our thoughts. This, of course, implies that the organs of manifestation have become in part destroyed, and that the mind cannot manifest itself to the world, until the impaired organs have attained their proper integrity; for it cannot be conceived that the mind, disconnected with matter, could suffer exhaustion. This involves, it is true, the idea that different parts of the brain are employed in different manifestations; but we know that as far as sensation and intellect are concerned, this is the case, and probability indicates a still more minute division. If, therefore, the brain suffer changes, as do the other organs of the body by their exercise, there is as much necessity for repose in the action of the brain, as there is for a vegetative state of existence to reinstate, in their full integrity, the organs of volition. Hence the necessity for that quiescent state of the mind known as sleep, when its manifestations cease. *The waste of cerebral substance could only have been occasioned by oxygen, which is the only ultimate cause of waste, as far as we are aware, in the animal economy. A deficiency in its supply would, therefore, retard waste, and allow vitality to remodel its impaired structures.*

Such, then, is the state into which the body is thrown by the periodical diminution in the action of the heart and lungs. The less rapidly that the heart beats, the less rapidly can the blood be aerated, and the oxygen-bearing fluid can be supplied to the brain. The slower that the lungs act, the slower must oxygen enter the system to supply the diminished circulation. And as the brain in sleep is not in a state in which it can change, from a deficiency in the supply of oxygen, the consequence is (if it be admitted that the manifestation of thought and sensation is accompanied by changes in the material substance of the brain), that the manifestations of the mind are prevented, and it becomes no longer apparent to the external world.

This, then, is SLEEP. But if the theory be correct, it must be able to explain the various circumstances which occasion or act as predisposing causes to the production of this state, and if it fail in the explanation of any of these, then is the theory imperfect; but if it explain more of them than the other theories usually received, such as those of Cullen, Blumenbach, Park, and others, it deserves to be considered as a nearer approximation to the truth, and the cases which it fails to comprehend may be included as our knowledge advances.

The first point demanding consideration is, how it happens that a recumbent posture is favourable to sleep. Park justly ascribes this to the diminished pressure of the blood on the heart. The weight of the column of blood from the head to the heart, estimated by Hales as equal in force to five pounds, is removed, and thus its distending force is diminished. The heart now relaxes, and the blood, therefore, is sent more slowly through the system. Having, by the horizontal posture assumed, acquired a retarded flow, the blood now comes less rapidly in contact with the organs of respiration, on which the same posture has produced a diminished action, and thus the quantity of arterial blood in the body becomes diminished. Though, therefore, all the vessels in the brain remain as full as they did before, yet, *by the deficient supply of oxygen, or, in other words, of arterial blood, and by the retarded circulation of that which does exist in the cavity of the skull, the causes of waste are diminished; and, therefore, according to the theory, sleep is produced.* For the same reason, sleep ensues when the aorta of an animal is tied, or when arterial blood is removed in large quantity from the body by excessive bleeding. Bichat has shewn that when venous blood is withdrawn from a vein and projected into an artery, sleep ensues, amounting to asphyxia, or even to death. The later researches of Dr Kay, now Dr Kay Shuttleworth, have proved that part of the results obtained by Bichat might have been due to an increased pressure on the brain; but Dr Kay's observations, while they modify, do not set aside the experiments of the former physiologist.

Any thing which removes the oxygen from the blood will, in the same manner, cause sleep. This is particularly apparent in the debauch of a drunkard. The drunkard takes alcoholic liquors with the production of two opposite effects. At first his heart beats rapidly, the blood flows more quickly, and he enters into that stage of fever which I described at the outset of the paper, in which the rapidity of circulation causes such an enormous supply of oxygen to the brain, that its substance wastes so rapidly as to become unfitted for the seat of the intellect, and delirium ensues. But even while this delirium is

at its height, the vapour of the alcohol is penetrating, by diffusion, every part of his body. Its hydrogen and its carbon are converting arterial blood into venous, by depriving the former of oxygen, which is its essential characteristic. The delirium now subsides; but the alcohol carries on its work of depriving the blood of oxygen, and the latter now not reaching the brain in quantity as it did before, prevents change in its substance, and the drunkard falls down in deep stupor or sleep. To restore him from this state, we withdraw the combustible fluid from the stomach, by means of the stomach-pump, and by ammonia and other stimulants endeavour to excite respiration and circulation, in order that the alcohol may be more speedily consumed.

The action of alcohol differs from that of opium or narcotics; because the permanent effect of the latter, whatever the first transitory effect may be, is to diminish the action of the heart and lungs, and therefore the sleep thus occasioned is brought about by causes exactly similar to those which in the natural state of health produce ordinary sleep.

The tendency to sleep in different animals is in inverse proportion to the amount of oxygen consumed by them, and to the amount of carbonic acid produced. Thus, reptiles and the naked amphibia produce, relative to their weight, according to the experiments of Müller, one-tenth the amount of carbonic acid evolved by mammalia, and one-nineteenth that of birds. We have no numbers to express the tendency to sleep of these animals; but it is known that reptiles are peculiarly liable to be in a state of torpor or sleep, while birds are, on the contrary, wakeful animals. A reptile, such as a frog, will exist in a state of torpor for twelve hours in an atmosphere of pure hydrogen gas, while birds die in the same number of seconds with the ordinary symptoms of asphyxia. Hydrogen gas, when respired with air, gives a tendency to sleep, as shewn by the experiments of Allan and Pepys, probably owing to the conversion of arterial into venous blood, as in the case of alcohol. The same circumstance of a diminished supply of oxygen to the blood, which induces sleep in reptiles, acts also in different mammalia in the promotion of this state, according to the relative size of their lungs. The same circumstance seems to operate in a like way with different men.

The only explanation which I have seen of the tendency to sleep after a heavy and excessive dinner is that first promulgated, I believe, by Macnish, who ascribes it to the drafting away of a large amount of sensorial or nervous power from the brain to complete the digestion of the excess of food in the stomach. This implies the necessity for considering the first

act of digestion as an act of vitality, of which, to say the least, there are great doubts. But the drafting of sensorial power, that is, as I take it, of power connected with the operation of the mind—for, if not, its removal could not favour the quiescence of the latter—is a mode of explanation which must be considered entirely hypothetical. I am not aware that an inducement to sleep is in general experienced when a small quantity of an indigestible food is taken into the stomach; and yet this ought to be the case, according to the view of Macnish. *The tendency to sleep is occasioned when the stomach is too much distended by an excess of food* (or if it do occur with a small quantity of an indigestible aliment, then there is an excessive flow of arterial blood to the stomach to assist in the more rapid oxidation of its coat, which the German chemists have dignified as the formation of a peculiar substance termed pepsin). The consequence of this distention is, that *the diaphragm, which separates the intestines from the heart and lungs, is pushed upwards against the latter, encroaching upon the space which ought to be occupied by them; thus preventing their free play, or, in other words, depriving the blood of its proper supply of oxygen*, and therefore producing sleep. A person subject to sleep after dinner experiences a sensation of cold, obviously arising from the diminished oxidation in his body. If this cold continue, sleep is prevented; because it excites—as cold generally does—the respiratory organs to greater activity, and this activity acts as an antagonist to sleep, or in fact neutralizes the effects arising from the pressure of the diaphragm against the lungs. Hence it is that such persons draw their seats towards the fire. The warmth of the fire prevents the increased action of the lungs, by preventing a diminution in the temperature of the body, and therefore the lungs are not excited to increased action, and sleep ensues. Hence, also, a gentle walk after dinner removes the tendency, by accelerating the play of the lungs, which now, by their increased action, introduce sufficient oxygen into the system to prevent sleep. It is also possible, as has been suggested to me by Mr Noble, that the increased flow of arterial blood to the stomach after a heavy meal may cause a tendency to sleep, by withdrawing a corresponding quantity from the brain. The effect occasioned by the pressure of the diaphragm on the lungs until the distention has ceased, is analogous to the more permanent effects produced in very fat individuals. It is well known that *very fat people are peculiarly prone to sleep*. The fat accumulates around the viscera, pushes up the diaphragm, and lodging around the heart and edges of the lungs, the latter by all these causes are compelled to play in smaller space, and soon become perma-

nently contracted. *Hence, any cause which occasions diminished respiration in such an individual will cause him to fall asleep, by diminishing further the supply of oxygen to the system.* The mere diminution in the action of the lungs produced by sitting often occasions sleep in such persons. In their case, the further protrusion of the diaphragm after meals almost invariably produces sleep. This is more marked in animals fattened for the butcher. Pigs in the last stage of fattening exhibit this disposition in a marked manner. After distending their stomachs with food, they make a few ineffectual attempts at an active respiration, and fall into deep sleep. The cause is the same as that stated, namely, the pressure of the diaphragm against the lungs. This prevents a proper supply of oxygen from entering the system. Macnish was not wrong in his observation that the sensorial power became diminished in the brain after a heavy dinner; but he mistook the effect for the cause, when he attributed the tendency to sleep to the abstraction of this power. The diminution of the quantity of arterial blood in the cavity of the skull appears to be the true cause of sleep in this case; and the decrease of sensorial power is a consequence, but not the cause, of the sleep. It cannot be considered that the absence of a disposition to sleep in some kinds of dropsy, in which the diaphragm is pushed against the lungs, forms a decided objection to the view given of the tendency to sleep after dinner; because, the contraction of the lungs being gradual, nature suits itself to the circumstances by exciting a more rapid respiration. Besides, the results occurring in the diseased state ought not to be considered strictly parallel to those we would expect if the body were in health.

Perhaps I might venture to throw out this view, as explanatory of *the winter sleep of hybernating animals.* In summer these animals accumulate fat in their bodies; probably from the very fact of the smallness of their lungs, which prevents the entrance of a sufficient supply of oxygen to convert the unazotized portion of their food into carbonic acid and water. This fat, accumulating around the caul and loins, pushes forward the diaphragm against the lungs. The fat also gathers round the edges of the heart and lungs, and still further diminishes the space in which the latter ought to play. *Thus respiration is greatly retarded, in consequence of which the animal falls asleep.* This explanation accords with the interesting experiments of Saissy, who has shewn that hybernating animals decompose most air when they are in a state of greatest activity; that they respire less during autumn as their fat accumulates; and that the respiration becomes extremely feeble at the commencement of their winter sleep, and ceases

altogether when that sleep becomes profound. Spallanzani has confirmed this fact, shewing that there must be a cutaneous respiration ; for a small amount of carbonic acid is evolved, although the lungs cease to act. During the long-continued sleep of the hybernating animals, the lungs play slowly ; in fact, several minutes often elapse between each respiration ; and the diminished state of oxidation is proved by the reduced temperature of their bodies, which is generally not higher than four degrees above that of the surrounding medium. In this state they have been aptly compared to lamps slowly burning, their fat being the oil, and the lungs the wick of the lamp. It is true that cold is favourable to the production of hybernation, and this is not in opposition to the theory ; but Berthold has shewn that hybernation takes place in a warm as well as in a cold atmosphere. If our view be correct, very fat animals should shew a similar disposition to sleep, and it is known that a pig in its last stage of fattening is rarely awake. Instances have occurred, in which pigs, being placed in a favourable condition, have actually proved their capability of being in a state of hybernation. Thus Martell describes the case of a fat pig overwhelmed with a slip of earth, which lived 160 days without food, and was found to have diminished in weight in that time more than 120 lbs., an instance quite analogous to the state of hybernation.

It is well known that *intense cold is a powerful inducement to sleep*. This effect is partly mechanical. The vessels containing blood become contracted ; the blood itself becomes more dense, and flows more sluggishly ; and consequently the brain, from the operation of both these causes, is less freely supplied with arterial blood. The theory therefore explains the result. This is the case only with extreme cold ; for a slightly reduced temperature, instead of promoting, often retards sleep. But here also the theory is true to itself ; for slight cold is known to increase the rapidity of respiration, and therefore causes an increased supply of oxygen to the system. Slight cold cannot act in this way so easily in the case of hybernating animals as in others, because the accumulation of fat, and enlargement of the glands in the chest and neck, press upon the respiratory nerves, and prevent their proper action.

If, then, it be true, that before the mind can manifest itself to the external world, its organ, the brain, must be in the position to unite with oxygen, any thing which tends to withdraw it from that position *must cause an impairment of the faculties*, even if the cause do not operate with sufficient intensity to produce sleep. This is very apparent in the cold

stage of ague, when the blood circulates slowly through the body. In fever, on the other hand, when the blood rushes in a torrent through the system, the mind becomes acutely sensible to every perception. In fever also, we find little disposition to sleep, and when this does occur, it is restless and disordered, accompanied by troubled dreams. The chemistry of this disease affords us an instructive lesson with regard to phenomena resulting in the case of health. There are two states into which organic matter passes;—**DECAY**, being the change which ensues when a large supply of oxygen is present; **PUTREFACTION**, when that supply is deficient. During the waking state in fever, decay or *eremacausis* proceeds rapidly, and delirium, the consequence of this state, appears when the heart beats quickly and the lungs play strongly; in other words, when the greatest supply of arterial blood is sent through the system. But during night, when the oxygen-bearing blood is decreased in quantity by diminished respiration—when oxygen is therefore not present in quantity sufficient to combine with the changing matter—then it passes over into putrefaction, indicated by the *petechiæ* (scarlet spots) which then appear. This chemical view of fever, either as exhibited in fevers of the typhoid type, or those occurring in malignant forms of disease, is not unimportant. If the appearance of *petechiæ* during sleep be, as I suppose, an indication that the body has passed over from the chemical state of *eremacausis* to that of putrefaction, from a deficiency in the supply of oxygen, then the means for the prevention of these states are very different, and the practice in the treatment might be made to suit the periodicity of the return. I throw this out as a mere suggestion for further inquiry. But there are numerous points in support of this view. It is only in the absence of increased action that we observe the ammoniacal nature of the excretions, or the peculiar odour of the breath, which indicates a state of change the very reverse of that of *eremacausis*. In this state, even on the old system of treatment, bleeding was not resorted to, but, on the contrary, stimulants were employed to cause increased circulation; for experience pointed out that the change thus begun is that which continues when vitality has left the body.

This case affords a clue not only to the explanation of chronic wakefulness, but also to *wakefulness under ordinary circumstances*. Some organic matter, in a state of decay, has entered the body, and has thrown the blood into a similar state of change. To prevent any dispute as to the kind of matter, let us take the case of sympathetic fever, or that of *cynanche maligna*. A patient enters the hospital with a frac-

tured bone ;—the case goes on favourably,—nothing is at first observed but local irritation ;—then it may assume a malignant form,—pus, obviously by its odour in a state of change, is observed to collect ;—then some of this is absorbed into the blood (for Gulliver states that he has found it there), and communicates to that fluid the same state of change ;—then fever, called sympathetic, ensues ; but if it be “sympathy,” it is sympathy exerted by one matter upon another, as a decaying orange excites decay in a fresh orange. This fever, be it observed, does not arise usually when an abscess is unbroken. It is generally excited when the pus has come in contact with air, and has united with oxygen. We try to prevent this union by means of poultices, these poultices being made of materials which will of themselves unite with oxygen, and thus prevent it acting on the pus. Occasionally poultices are used made of yeast and flour, as in the cataplasma fermenti of the London Pharmacopœia, the object being to surround the pus with an atmosphere of carbonic acid, and thus prevent the access of oxygen. The most favourite poultice in use is that made with linseed, which, from its oil and mucilage, possesses a powerful affinity for oxygen. The state of change, being once excited, goes on, and cannot be arrested without vigorous measures ; sometimes not at all until death ensues, from the combined effects of decay and putrefaction following each other as the oxygen is sufficient or deficient. But the point to be observed is this, that the change in the blood once begun is with difficulty arrested ; the disposition to oxygenize is communicated, and if there be oxygen sufficient, matter will be oxidized. Then, to apply this to our subject :—The brain becomes excited by intense thought, by the exercise of imagination, by exciting scenes of amusement, or by whatever cause it may be. The mind, being called into full exercise, must, in its manifestations, cause a change of matter in the organ in which it resides. But in this case the change of matter is excessive, and the tendency to oxidation is communicated to the part of the brain contiguous to that in a state of change. This also becomes oxidized, and the cerebral substance does not get into that state which favours the quiescent state of the mind known as sleep. The student, after severe and exciting study, is familiar with this state of wakefulness. If his studies have been such as to demand the exercise of his reason, on retiring to rest he endeavours to force his attention into subjects the reverse of the former, generally those of imagination. In other words, he endeavours to withdraw the mind from manifesting itself through that portion of matter which is thrown into a state of change,

and by so doing it gradually resumes a state of tranquillity, and sleep then ensues. But if, by excessive or diseased action, such as in insanity, the inflamed (oxygenizing) matter cannot be made to yield its tendency to change, then chronic wakefulness ensues, so often seen in the case of the insane. To reduce this state, we endeavour to extinguish the eremacausis, by lowering the temperature either by cold ablution or by ice, or by administering opium to diminish respiration and circulation. *As soon as the change is arrested in the substance of the brain* (what physicians call "inflammation," which chemists interpret "union with oxygen"), *the brain is placed in a state unfit for being the organ of manifestation, and sleep ensues.* The wakefulness of patients afflicted with delirium tremens is obviously connected with the amount of arterial blood and consequent inflammation and oxygenation of the brain; and as disease is merely a disturbance of the equilibrium in the causes of waste and those of supply, any magnified exhibition of a phenomenon occurring in disease must have its reduced analogue in the ordinary state of health. Wakefulness is that analogue, being a tendency to excessive change in particular parts of the brain, induced, it is true, not primarily by the change, but by the activity of the mind itself requiring that change to aid in its manifestation. Follow the analogy, and we come to dreaming, which, apart from its metaphysical aspect, is a physiological phenomenon, so far as concerns the state of the matter of the brain during its occurrence. In fever and insanity we attempt to reduce the keen perceptions or delirium by the exhibition of remedies calculated to diminish the waste of matter in the brain. Blood is sometimes withdrawn from the system for the purpose of diminishing the number of the carriers of oxygen. Narcotics are administered in order to decrease the number of respirations, and to diminish circulation. In extreme cases, large doses of brandy or other alcoholic liquors are exhibited, for the combined purpose of depriving the blood of oxygen, and of arresting putrefaction.

By all these acts it is admitted that the excessive waste or oxygenation of the substance of the brain renders it unfitted for the proper seat of the mind. It is admitted that the rapid change of matter prevents the brain attaining that state which favours the quiescence of the mind. How it does so we do not know, and perhaps never shall. But these are established facts, the foundation of medical and physiological practice, and therefore cannot be denied. And if this be admitted with regard to the whole substance of the brain, may it not be so of a part? Combe tells us of a patient who was afflicted

with an unnatural increase of a feeling of the mind, but that by applying ice to a particular part of the head which was inflamed, the feeling subsided to its natural tone. *Dreaming, then, might be considered* (this I throw out as a mere speculation) *to be a disturbance between the causes of waste and of supply in a particular part of the brain.* I mean, that if, to use the language of phrenologists, without necessarily assenting to their doctrines, the organ of Wonder, from some cause or another, be thrown into a state of oxidation during sleep, that part of the brain would be thrown out of the condition which favours the quiescent state of the mind. Wonder would therefore manifest itself to the external world without being guided by the reasoning powers or judgment, which are in quiescence or sleep. Thus it would revel in all the absurd phantasies to which that feeling of the mind gives rise. I have selected this phrenological organ as a mere example of my meaning, without wishing to insist upon the division of organs, as a necessary part of the speculation. If those parts of the brain used as the organs of manifestation for judgment were brought into play at the same time as Wonder, the dream would be more coherent, and, as soon as the change took place to such an extent as to throw the brain into that state which did not favour the quiescence of the mind, then waking would ensue. Hence, according to this speculation, dreaming is a state of wakefulness of feelings of the mind manifested through particular parts of the brain; while other feelings of the mind, manifested through other parts of the brain, are still asleep, and therefore not in a condition, by comparison and reflection, to modify those awake. It is probable, that during dreaming there is more arterialized blood in the cavity of the head than during sleep without dreaming, a circumstance indicated by the red flushed appearance of the face during dreams. The speculation is also supported by the class of persons subject to dreaming. A phlegmatic person, whose heart beats slowly and whose lungs play slowly, rarely dreams. A fat person, with a diaphragm well pushed up against his lungs, rarely dreams. But the greatest dreamer is the man of nervous temperament, whose heart and lungs do not play with all the steadfastness of the pendulum of a clock, but by causes yet unexplained are fitful in their action. For the same reason, in fever, the quickly circulating blood, at some times propelled more rapidly than at others, is apt to cause this state of wakefulness in particular parts of the brain, by throwing them into a state such as does not favour the quiescence of the mind. However, this is a subject which is thrown out as a mere speculation for consideration.

It may be objected to the view of sleep here given, that if it were owing to a diminished state of oxidation in the brain, the respiration of pure oxygen ought to retard sleep ; whereas, on the contrary, it is observed to render the animal exposed to it comatose, and death ensues after the animal has remained for some time in a state of deep stupor. Yet both the blood in the veins and arteries was found by Broughton to be very florid, and every thing indicates a high state of oxidation. Christison and other toxicologists ascribe the death to an increased oxidation or hyperarterialization of the blood. The phenomena, therefore, seem in direct opposition to our theory of sleep. But let us consider the case closely. Arterial blood differs from venous in the state of oxidation of its iron. The peroxide of iron parts with its oxygen to the tissues, and converts the matter acted upon into carbonic acid and water. The carbonic acid unites with the protoxide of iron, and is carried as carbonate of iron, by the venous blood, to the lungs, where it becomes oxidized, and the carbonic acid evolved ; for this gas is incapable of uniting with peroxide of iron. Now, when an animal breathes oxygen, even the venous blood is arterialized, or, in other words, there is no protoxide of iron left in the system. But, owing to the excess of oxygen gas, there must be a rapid waste of the tissues, and the formation of a large quantity of carbonic acid gas, which has now no iron in a state to carry it to the lungs. It therefore accumulates in the system, and the animal becomes comatose and dies, not on account of *oxygen*, but of *carbonic acid* which has no means of escape. It has been remarked, that there is comparatively little carbonic acid evolved in poisoning by oxygen ; for the atmosphere in which the animal dies causes a blown-out taper to burst into flame. The heart after the death of the animal is found to beat rapidly, and shews the excited state into which the body was thrown by oxygen, until the accumulating carbonic acid produced the peculiar effects for which it is remarkable. Thus, this simple explanation, while it vindicates the truth of the theory, affords an explanation of the cause of poisoning by oxygen, which toxicologists have always considered as most incomprehensible and singular. The effects of nitrous oxide on the system are very similar to those of oxygen, and are obviously due to the same cause. Broughton found that even the venous blood had become arterialized, when an animal was made to respire this gas.

The attentive study of the peculiar condition of matter in the various states in which the mind manifests itself, or remains unmanifested, to the external world, is of great importance in the treatment of disease. To take the case of

apoplexy and its allied diseases. I do not allude to apoplexy occasioned by the rupture of an apoplectic sac, but that form in which it arises from the turgid state of blood-vessels in the brain, or in the more rare form of what is termed "simple apoplexy" by Dr Abercrombie. The state in which the brain is placed in this disease seems to be merely an increased state of the condition in ordinary sleep. The congestion or turgid state of the venous vessels necessarily implies a diminished amount of blood in the arteries; for the skull, being a close cavity, must always contain the same amount of fluid; and on this account, if the quantity of venous blood be increased, that of arterial blood must be diminished. Hence, although the use of the lancet may awaken the patient from deep stupor, by removing the deoxidized blood which may have accumulated in the brain by the lesion of a vessel or by some irregularity in the action of the heart, yet it becomes a question, whether the removal of blood, by diminishing the number of carriers of oxygen to the brain, may not cause a tendency to relapse, when the temporary obstruction shall have been removed. All I mean by this is, that if we admit the cause of sleep to be a diminished supply of oxygen to the brain, we must admit certain forms of disease, such as congestive apoplexy, syncope, perhaps even catalepsy, to be due to the increased operation of the same cause,—a circumstance attested by the diminished temperature of the body which results in this class of diseases; if, then, we know the effects to be due to a want of oxygenation of the substance of the brain, we are in a position more completely to regulate our practice in the treatment of such diseases. So, also, in the treatment of wakefulness, dreaming, restlessness, &c., for which the physician is so often called upon to prescribe a remedy, the knowledge of the state of the brain in the state of waking and of sleep, may point out the way to throw it into the state which favours the activity or quiescence of the mind. Hence an accurate definition of these states is not unimportant in a practical point of view.

It does not necessarily impair the accuracy of such a definition, that many assumptions are taken for granted to explain one part of the phenomenon. When we see a wheel revolved by the ascent and descent of a piston-rod, our explanation of the means by which a perpendicular is converted into a rotatory motion is not rendered valueless, because we do not trace it to the means by which the force is generated. We have a right to assume the existence of the necessary force, and from this point alone attempt an explanation. So, also, when I say that the effect of a diminution in the play of the respiratory organs induces sleep, as in the case of intense cold;

or that their accelerated action retards sleep, as when the temperature is only slightly depressed ; my conclusion may be perfectly correct, without my being called upon to prove the cause of the diminution in the action in the one case, or its increase in the other, because my attention is confined only to one part of the phenomenon. So, also, if I say that syncope is due to a diminished quantity of arterial blood in the brain, I may be correct as to the proximate cause, without being obliged to shew by what means the conducting power of the nerves leading to the involuntary organs, has become so impaired as to cause the temporary obstruction of these organs. In describing the chemical state of the body, and the effects produced by this state, the duty of the chemist is only to consider the proximate cause of its production, while the physiologist ought to explain the ultimate causes which predispose the body to enter into that state. I have attempted to explain, in certain cases, one part of the phenomenon, not for the purpose of giving idle play to fancy, but with the hope that these speculations, if they do not of themselves represent the truth, may lead other persons to the consideration of the same subject.

III. *On the artificially-distorted Skulls of a Peruvian Race.*

In a former paper (vol. xv. p. 220), we were at some pains to shew that the misshapen skulls found in the ancient tombs near Lake Titicaca, and in other districts of Peru, had been deformed by artificial means, and that, consequently, the ob-



jection to Phrenology which had been grounded on them was altogether ineffectual.* We now learn from Dr Prichard's

* The objection was, that the architectural and other remains of a civilized people, which abound near Lake Titicaca, must have been produced by the persons whose skulls are so ill-formed, whereas, if Phrenology be true, the cerebral development indicated by those skulls could not have belonged to a race capable of executing such works.

Natural History of Man, published last year, that the same opinion as to their distortion is held by M. D'Orbigny, an eminent French traveller and naturalist, who, moreover, inclines to the conclusion at which we also arrived, that the effect of the distortion in such cases is merely, or chiefly, to displace certain parts of the brain, without materially diminishing their substance or impairing their functions.

"The fact," says Dr Prichard, "that the peculiar form of the flattened skulls found at Titicaca and elsewhere is the result of artificial pressure, is so important in regard to the physical history of the race, and of mankind in general, that I shall incur the risk of being somewhat prolix in order to lay before my readers M. D'Orbigny's observations on this subject.

"It is not difficult to furnish proofs of the artificial change in the aspect of the skulls themselves. 'We observe,' says M. D'Orbigny, 'in the flattening of the frontal bone, in the projection that it forms over the parietal bones at the upper part, that there has evidently been compression before and behind, and which has forced the mass of the brain backwards, by pushing, as it were, the frontal bone over the parietals.'

"The head of a young subject in my possession shews still more clearly, by a longitudinal fold which exists at the upper medial part of the vertex, by a strong projection of the frontal over the parietal bones, and by the prominence, equally strong, of the upper part of the occipital over these parietal bones, that the pressure has been employed in a circular manner, from the earliest age of infancy, by means of a large ligature. This supposition appears still more admissible, when we observe from behind, that not only the mass of the brain has given a great size to the posterior parts, to the prejudice of the anterior, but also that, the pressure having greatly increased the convexity of the posterior lobes of the brain, the parietal bones have necessarily followed the same shape in being modelled upon them; the parietal bones, likewise, form always two latero-posterior convexities, slightly separated by an evident depression. We find again another proof of this pressure in the obliteration of the sutures, which is observable upon all the points affected by pressure, even in the heads of the youngest subjects.'

"M. D'Orbigny considers it as now fully proved, that the depressed or elongated form of these heads is not, as was supposed, the natural character of the skulls of the Aymaras, but is only an exception, evidently owing to the intervention of art. It would be interesting to inquire into the antiquity of this custom of flattening the head, and the influence that it

is likely to have exercised over the intelligence of the subjects among whom it is found most marked.

“ ‘As to the antiquity of the custom, we see by the profile of the head of a colossal statue before the era of the Incas, that they were not then depressed; for the ancient people, who always aimed to exaggerate existing characteristics, would not have failed to exhibit them. It is, therefore, probable that this custom was contemporaneous with the reign of the Incas. Even the lengthening of the ears of one of these compressed heads may lead us to determine very nearly the age in which the individual lived. It was found in the province of Carau-gas to the west of Oruro. It is known that this province was only conquered under the reign of the seventh Inca, Yahuar Hucac, who, according to all probability, lived about the thirteenth century; thus, as the Incas only granted the honour of stretching the ears as a special grace, and to recompense a conquered nation for its prompt submission to their laws, and as this concession came necessarily at the end of the establishment of the customs of the conquerors, we may suppose that it was not generally in practice among the Aymaras till towards the fourteenth or fifteenth century. The statues shew, besides, that the custom of lengthening the ears was unknown at the time of the first civilization of the plateaux of the Andes.

“ ‘We have not been able to learn any thing clearly with respect to the influence which this artificial deformity of the head had upon the intellectual faculties of the Aymaras, since the old historians give us no information; but there is reason to believe that there may be a displacement of the parts of the brain without any diminution of substance. It will be admitted, that, by the nature of their occupations, the chiefs of these nations had probably their intellectual faculties more expanded than their vassals. May we not from this fact draw an argument in favour of our opinion? for the most depressed heads that we have seen have been constantly found in tombs, whose construction announces that they belonged to the chiefs.’ ”—Prichard, p. 440-443; and figs. 41 and 48.

Dr Prichard conceives the existing Peruvian race of Aymaras to be the descendants of the ancient race of whose skulls those in question are specimens. The present Aymaras are stated by Dr Prichard to have the same form of the head with the Quichua or Inca Peruvians: it “is often large, with a capacious cranium, oblong from back to front, and slightly compressed at the sides. The heads of the present Aymaras,” adds Dr Prichard, “display no trace of that flatness which is so conspicuous in the skulls found around the lake of Titicaca, and in other parts of the Aymara country,” p. 438. The Titicacan

skulls have usually been regarded as relics of an extinct race; but the opposite representation of Dr Prichard certainly receives countenance from the conclusion that their deformity is not natural but artificial, as well as from the fact that the custom of distorting the head is not of very ancient origin. Dr P. adds, that "in their character, likewise, in their intellectual faculties, in manners, customs, private and social, in agriculture and manufactures, and dress, the Aymaras resemble in every respect the Quichas, to whom they were subject."

To the testimonies presented in this and our former article, in favour of the conclusion that mere displacement of cerebral organs is the consequence of artificial distortion of the skull, we add the following extract from Dr Traill's article on Physical Geography in the *Encyclopædia Britannica*, vol. xvii. p. 555. "Some of the native tribes (of North America) singularly flatten the head, by compression, while in the infant state. This is particularly the case with a tribe on the Columbia. One of their skulls, in the College Museum of Edinburgh, is depressed in a most extraordinary degree, so that the frontal sinus seems almost as high as the vertex; and the head is posteriorly and laterally extended. This was the skull of a person of rank. It was procured by the late Dr Gairdner, along with the skull of a slave of the same tribe, in which this flattening, no doubt esteemed a great beauty, had not been practised, but which exhibited, to our eyes, a much more handsome form than that of his master."

IV. On Mesmerism in connection with Mental Philosophy.

TO THE EDITOR OF THE PHRENOLOGICAL JOURNAL.

SIR,—In a note which you acknowledged in article xv. of your Journal for June 1837, I advocated the study of Animal Magnetism as an interesting branch of the science of mind. You were then pleased to consider it *unreasonable*;* but a change has since come over the spirit of your dream, and I rejoice that Mesmerism is now beginning to attract the atten-

* On referring to vol. x. p. 614, it will be seen that what we characterised as "unreasonable," was our correspondent's letter, not the study of Animal Magnetism, of which, on the contrary, we affirmed, that "whenever we had mentioned it, we had done so with respect." Mesmerism has now greater claims to the attention of phrenologists than it had in 1837.

The present communication is inserted chiefly on account of its lively and suggestive character. The writer deals much in *conjecture*, but his remarks may conduce to future *discovery*.—ED.

tion of phrenologists, from a growing conviction that some of its phenomena are calculated to verify and establish the fundamental principles of their own doctrine. For my own part, I am so far from joining with the learned author of *Isis Revelata*, in forbidding the bans of marriage between Phrenology and Animal Magnetism, and denouncing Mesmero-Phrenology as a *hybrid offspring* and *bastard science*, that I hail the auspicious alliance between them, and look forward to the fruit of their union as a legitimate and *high-bred progeny*, destined at no distant period to achieve a great revolution in the schools of metaphysics and the healing art.

I regretted at the time your ungracious reception of my well meant suggestions, and deplored the perverseness of your cerebral organization in not condescending to read *Isis Revelata*, and learning from it that *the mind sometimes shifts its quarters to the belly*, by which familiar phraseology I had playfully adverted to that abnormal condition of the nervous system, in which, according to the mesmerists, the mind transfers her seat from the encephalon to the plexus solaris. But if disappointed then, I have been amply gratified since, by witnessing your subsequent admission of the claims of Mesmerism to be studied as a legitimate branch of phrenological research, without longer awaiting the required *experimentum crucis* of *men with small brains manifesting vigorously the mental functions by means of their intestines*; on proof of which you had pledged yourself to *flock to Mr Colquhoun's school, and surrender your preconceived notions in favour of the new light*. I do not quote these, your own expressions, in the way of reproach, but merely as a gentle and friendly rap over the knuckles for the *not over fair* manner of putting my case, and insinuating that your unreasonable correspondent, in maintaining so absurd a belief, was better provided in his *lower* than his *attic* story. But let that pass. The main object of my present address is, to state my hope that you will continue to keep open the pages of your valuable Journal to communications on the subject of Animal Magnetism, and to encourage, by precept and example, researches into the nature and truth of mesmeric phenomena in connection with Phrenology; one of the beneficial results of which, I am persuaded, will be a clearer insight into the causes and character of insanity, and improved methods of treating the various kinds and degrees of mental hallucination and monomania.

On a recent reperusal of *The Pirate*, I was struck with the picture Sir Walter Scott has drawn of the sibyl "Norna of the Fitful Head," as exhibiting features closely resembling those of the clairvoyante of mesmerisers. For the convenience

of reference, I subjoin the note* at the end of that novel, and should be happy to see the subject of double consciousness, and the case of partial insanity therein mentioned, taken up and analysed by yourself, or some other equally qualified phrenologist. In the character of Norna, Sir Walter Scott appears to have conceived the idea of an individual whose nervous system, more especially when under the influence of strong excitement, was constitutionally in a condition similar to what is induced artificially in those extraordinary stages of the mesmeric trance, denominated prevision and clairvoyance. Could we be assured of the existence of such an idiosyncrasy, it might serve to account for the prophetic faculty of fortune-tellers, who are, in general, regarded as arrant impostors. Many of the ignorant and unfortunate creatures who, in our own country a century or two ago, were tried and convicted as witches, appear by their own confessions to have believed that they possessed that faculty, which they themselves, as well as the judges by whom they were condemned to the stake, ascribed to the inspiration of the devil. Nay, more, if we may credit some seemingly well authenticated cases of *mesmeric levity*, where the attraction of gravitation appears for the time to have been annihilated or neutralized (as we see in the instance of iron when subjected to the influence of the magnet), we may yet have to acknowledge the reality of another feat of

* "The character of Norna is meant to be an instance of that singular kind of insanity during which the patient, while he or she retains much subtlety and address, for the power of imposing on others, is still more ingenious in endeavouring to impose upon themselves. Indeed maniacs of this kind may be often observed to possess a sort of double character, in one of which they are the being whom their distempered imagination shapes out, and, in the other, their own natural self as seen to exist by other people. This species of double consciousness makes wild work with the patient's imagination, and, judiciously used, is perhaps a frequent means of restoring sanity of intellect. Exterior circumstances striking the senses, often have a powerful effect in undermining or battering the airy castles which the disorder has excited.

"A late medical gentleman, my particular friend, told me the case of a lunatic patient confined in the Edinburgh Infirmary. He was so far happy, that his mental alienation was of a gay and pleasant character, giving a kind of joyous explanation to all that came in contact with him. He considered the large house, numerous servants, &c., of the hospital, as all matters of state and consequence belonging to his own personal establishment, and had no doubt of his own wealth and grandeur. One thing alone puzzled this man of wealth. Although he was provided with a first-rate cook and proper assistants, although his table was regularly supplied with every delicacy of the season, yet he confessed to my friend that by some uncommon depravity of the palate, every thing which he ate *tasted of porridge*. This peculiarity, of course, arose from the poor man being fed upon nothing else, and because his stomach was not so easily deceived as his other senses."—*Note by Sir Walter Scott.*

witchcraft, as startling as the *intestinal development of the mental faculties*, and no longer deny the possibility of flying through the air with "incorporeal speed" to the uttermost regions of the earth.* Nothing short of ocular demonstration will, I presume, induce a cautious phrenologist, like yourself, to *surrender your preconceived notions* of the Newtonian philosophy *in favour of this new light*, and flock to old Mother Bunch's Hippodrome; but, in the mean time, we may be permitted to hazard a conjecture, that the popular belief of witches riding on a broomstick originated in the inability of the vulgar—and of their betters too—otherwise to account for the knowledge which the midnight hag had acquired of what was passing in distant places.† In these our more enlightened days, while we laugh at the superstitious folly of our ancestors, who sent their old women to cross the ocean in a sieve, or to bestride their wooden palfreys through the air, we listen with astonishment and awe to the revelations of a youthful maiden in the mesmeric trance, seated beside us in a darkened chamber, whose spirit takes its flight out of the body to seek a temporary reunion with the *anima mundi*; and who, thus partaking of ubiquity, becomes forthwith omniscient, and when questioned through the corporeal organs, answers through the same medium as the only means she has of communicating with those whose spirits are not free like her own. But with congenial souls, whose bodies are also in the mesmeric sleep, she requires not the aid of corporeal organs, or corporeal propinquity, but holds direct converse with them wherever they may be, in a language which ear hears not, nor can tongue utter. This philosophical view of the subject is surely as satisfactory as that of those who are ever ready to cut the Gordian knot of supernaturalism with the shears‡ of Beelzebub,

* See *Isis Revelata*, vol. ii. page 105, where the author gravely remarks, that, if the fact of mesmeric levity were once demonstrated, it might serve, perhaps, to explain some of the extraordinary powers attributed to witches, such as flying in the air, &c. The subject, he adds, therefore *deserves attention*, and he quotes a curious case on the authority of Dr Abercrombie.

† The history and philosophy of witchcraft and the second sight, viewed in connection with the phenomena of Mesmerism, would be a subject worthy of the talent and research of that able investigator of the science of the human mind—the author of the *System of Phrenology*. As far as it goes, a very good article, from the pen of the editor of the *London Polytechnic Magazine*, No. II., for the present month of February, Thomas Stone, M.D., has appeared on this subject, entitled "Witchcraft and Mesmerism."

‡ See a sermon preached by the Rev. Hugh M'Neile, M.A., headed, "Satanic Agency and Mesmerism." The text is from *Thessalonians* ii. 9, 10—"Even him whose coming is after the working of Satan, with

and ascribe all the phenomena of prevision and clairvoyance to the agency of the prince of the powers of darkness. Has it not occurred to such reasoners as the Reverend Mr M'Neile, that there may be an instinct or faculty implanted in man, though rarely developed, similar to that which we see daily exercised by the lower animals, as in the instance of the dog, who *divines*, as it were, the thoughts and wishes of his master, or of the pigeon which finds its way home, however distant may be the place to which it has been removed. These animals obviously exercise a sense distinct from any which we recognise in ourselves; but ought we, on that account, to deny the possibility of its *latent* existence in the human organism? Strange and incredible as may be deemed the instinct of *seeing* (or knowing) what the eye cannot see, may it not be said that the faculty by which we acquire a knowledge of the external world through that organ in ordinary vision, would be considered by persons born blind equally incomprehensible, were they not familiarized from infancy with the idea of its reality from the language of all around them? Viewed aright, this faculty of ordinary vision is in itself as wonderful and mysterious as that by which we may be supposed, in the mesmeric trance, to acquire a knowledge of distant places. Our common sight is confined within a narrow sphere—by the aid of the telescope we bring within our ken what was previously invisible to us; and may not the Almighty Optician have furnished the human soul with a telescope for the *mind's* eye, through which it may in peculiar conditions of our nervous system, see “as through a glass dimly,” what to the corporeal eye is as much shut out, as all vision whatsoever of the external world is withheld from the blind?

But the common error, in regard to what has been termed *transference of sensation*, has arisen from employing the word *seeing*, as if the faculty of reading in the dark, or by placing the writing on the epigastrium, were transferred from the eye to the skin. Anatomists maintain that the optic nerve is alone capable of conveying the impressions of sight to the mind, and that, when the eye is debarred from the exercise of its proper and peculiar function, all idea of seeing is absurd. But it may be asked, what impossibility is there in the assumed existence of a faculty of mind (call it *mental vision* if you please), whose organ defies their scalpel or microscope, and by means

all power, and signs and lying wonders, and with all deceivableness of unrighteousness in them that perish.” Speaking of Satan, he asks, “Is it not worthy the skill of his devices and his cunning to walk with men *who would be philosophers*, but who in this instance are *neeromancers*?”

of which a knowledge of the external world may be acquired, far transcending that which, in our ordinary state, we obtain through the eye? In the mesmeric trance, the individual does not see (or, *more correctly*, does not acquire his knowledge) through the instrumentality of the eye; and the term "transference of sensation," as implying that its faculty is transferred to the skin with which the writing comes in contact, is a misnomer. The clairvoyant, it is true, talks to us of his seeing and hearing objects and sounds; but it is obvious that such language is merely figurative, as when we speak of seeing and hearing in dreams and delirium.*

To return from this digression, to the case of the lunatic patient referred to in the note. I am aware that the state of double consciousness, of which Sir Walter Scott speaks, has not escaped the notice of phrenologists; but they have not, I believe, adverted to its connection with the phenomena of Animal Magnetism. The patient in question is stated to have had the organ of taste in a sound condition, while that of vision was deranged. With respect to this curious fact, I would beg to remark that Phrenology, as far as I know, has not, in mapping out the divisions of the brain, allotted special portions of it for the reception of the impressions conveyed to it by the nerves of the organs of the several senses.† Phreno-

* A very competent judge of mesmeric phenomena, Mr Braid of Manchester, in some observations on this subject, published in the *Medical Times* of 13th January, does not allow the reality of clairvoyance. "One of the most interesting and important phenomena," he remarks, "connected with hypnotism, is that extraordinary activity of the imagination whereby ideas excited in the mind, whether from recalled past impressions, or by oral suggestion, or otherwise, are instantly invested with all the attributes of reality. From this cause patients make very striking remarks, not from any desire to deceive others, but because they are self-deceived; the extreme vividness of their ideas leading them to believe as real what are only the figments of fancy. Thus, name any person, place, or thing, and instantly they will imagine they see or hear them, and will probably enter into elaborate descriptions regarding them. I have thus astonished many persons by descriptions which patients have given of various circumstances and places; but in the end, I have convinced them that it was only *shrewd guessing or imaginary description*. I have never yet seen any decided case of clairvoyance." In the same paper he gives some curious instances of the power of influencing the imagination of a mesmeric patient. "If it has been suggested," he says, "that gold would burn, the moment a sovereign has been dropt into the hand, it is thrown down with all the terror and apparent suffering which would have been the consequence of its having been red hot." The whole letter is well worth the attention of phrenologists.

† That such special organs exist in the brain is thought probable by Dr Caldwell and Mr Combe. See *System of Phrenology*, Fifth Edition, vol. ii. p. 14.—Ed.

logists speak of the over or under excitement of the organs of Size, Form, Tune, Time, &c., but not of those of Sight, Hearing, Taste, and Smell. These latter organs, it may be said, are external; but still they must communicate their impressions to some appropriate portions of the brain before the mind can take cognizance of the information so conveyed. If you say that the mind receives its ideas of the external world from the impressions conveyed by the nerves of sense to the brain *generally*, then do you not appear to abandon the first principles of Phrenology, and leave us where we were before your science was taught? But if the mind derive its knowledge of external things through the medium of separate and distinct portions of the encephalon, there must be some part of the brain, for example, which is excited by the nerve of vision, whenever the mind is made conscious of the objects presented to its view. And if so, let me ask how the mind of the lunatic patient, whose case we are considering, did not see what was placed before his bodily eye, when it tasted what came in contact with his palate. He *saw*, we will suppose, in his bowl of humble fare, an aldermanic tureen of delicious turtle; but still the callipash and callipee, he declared, tasted only of oatmeal. If it be said that the delusions of the insane are frequently partial, owing to the derangement of one or more portions of the brain, while the rest is in a healthy condition, we must assume, in the case before us, that that portion of the brain was diseased which receives the impressions of sight, while the portion appropriated to those of taste was in its normal state. Again, then, let me ask if Phrenology indicates the locality of those portions of the encephalon? * And if, in answer to my question, I am told that the delusion lies in the *imagination* of the patient, which acts independently of impressions from the nerves of the external organs of sense, may we not inquire how, in the case of the lunatic patient, the idea of oatmeal came to be excited in his mind by the gustatory nerve. Phrenology does not, I believe, allot any special part of the brain for an organ of *imagination*, as a creative faculty, unless it be synonymous with *Ideality*. But if the *creative power* be a function of Ideality, then it must, I submit, be supposed to act in combination with the organs of Wonder, Form, Size, &c., to give rise to the creations of fancy, which will thus take their fantastic shapes and hues according to the degree of excitement, and healthy or unhealthy condition, of those

* It would appear from the *Phreno-Magnet*, No. XI., page 332, that a magnetic patient has indicated the locality of the several organs of the senses of Hearing, Feeling, Tasting, Smelling, &c. Credat Judæus!

organs. If this be so, *Imagination* may not have been considered by phrenologists to be a primitive and distinct faculty, but, like *memory*, may have no special organ assigned to it. As far as my memory serves, for it is many years since I had an opportunity of reading one of the earlier editions of the *System of Phrenology*, the account of *Imagination*, as one of the faculties of mind, is short and incomplete. The word, indeed, is extremely vague. At times it evidently means the *mind itself*. When it is alleged that the effects produced by the mesmeric process are to be ascribed solely to *the imagination*, what else can be meant than that the *mind* has been affected through the influence of the nervous system? And this I presume, the mesmerists are as ready to admit as their opponents. The *imagination* of the antimesmerists is but another name for the *mesmeric fluid* of the mesmerisers. The *agent*, in both cases, is equally unknown;—the effect produced is all that we can see; and about this there can be no dispute, if we believe the evidence of our senses. If the reality of the mesmeric state is to be denied, because it has been frequently simulated by impostors, for the sake of gain, or other objects, what faith should be placed in medicine, which has been so much abused by quacks? Whatever be the *cause*, let us avail ourselves of the *means* by which, for beneficial purposes, the *mind*, or *imagination*, is made to act on the body; and, if once satisfied that *faith* in the efficacy of an imaginary pill or potion will produce the desired effect, let the physician no longer hesitate to introduce this *immaterial* article into the *Materia Medica*, despite the reclamations of the interested pharmacopolist, whose gains would suffer by the innovation. The medical *materialist* may smile at this advice, and say how the bills of mortality would be swelled were he, in a case of fever, to open an imaginary vein, or draw on the dispensary of faith for a brisk cathartic “to be well shaken before taken;” but who does not acknowledge how often the cure is to be ascribed more to the confidence inspired by the name and reputation of the prescriber, than to the virtue of his prescription?

Phrenology, I humbly submit, as a science, has still much to learn, and will continue imperfect while it refuses to acknowledge the existence of a brain, as the organ of mind, in the belly, as well as in the head. I allude, of course, to that theory of the nervous system, which places one centre of nervous matter in the encephalon, and the other in the abdominal ganglia. In the one, mind manifests itself by the exercise of reason, and the several moral and intellectual faculties; and, in the other, by that of the various animal propensities

called *instincts*. Instincts, then, may be termed the *faculties* of the ganglionic mind. The former, no less than the latter, imply the presence, influence, and agency, of a directing spirit or soul—each, at times, acting independently of the other, and, at times, sympathising and acting in concert. The ganglionic mind takes exclusive cognisance of the digestion, circulation, respiration, and secretions of the body; and, in its character of *vis conservatrix et medicatrix naturæ*, exhibits, I conceive, as great intelligence, in the due regulation of all the animal functions, and in the care and repair of each individual's body, as the *cephalic* or rational mind evinces in the exercise of its appropriate faculties, for his guidance as a reasonable and responsible being. The functions of the former are generally carried on without the consciousness of the latter, and hence its acts have been termed *involuntary*. But though not subject to the will, are they not obviously the impulses of an intelligence which, under the name of *instinct*, has by some been ranked as superior even to reason? "In this 'tis God directs, in that 'tis man." But who does not feel that it is alike God in both? Both are functions of the living spirit breathed into man by his Almighty Creator; both partake of the Divine nature; and both operate in this life through the instrumentality of nervous matter called *brain*; one portion of which is securely placed within the *cranium*; and the other, not less so, in the *abdomen*: both are alike deserving of the study of the phrenologist, who claims as his province the *whole* science of mind. It seems to me strange indeed, that philosophers should have called the instincts of the lower animals, as in the instance of the bee, *mechanical*, as if their instincts were not as much the impulse or dictate of the peculiar mind or intelligence implanted in them by the hand of an all-wise Creator, to fit them for the purposes of their creation, as are man's intellectual and other faculties the *instincts* or acts of the human mind. When an individual is suddenly struck down by a sudden emotion of grief or joy, I would say that the ganglionic mind which presides over the so-called *involuntary* functions of the human organism, is as directly affected as the cerebral or rational mind. These two minds (or *two* functions of the *one* living spirit), sympathising and acting together, are together paralysed; the effect on the latter appearing in the total or partial—temporary or permanent—deprivation of reason; and on the former, in a similar loss of power in the bodily members, and even in the instantaneous extinction of life itself. In such a case, death, it is said, was owing to the influence of the *imagination*—a most *satisfactory* explanation, no doubt, to those who know what it means.

In a word, I would venture to predict that phrenologists will yet see reason to modify their doctrine regarding the exclusive agency of the encephalon as the instrument of mind, and to seek for some of their organs in the abdominal *brain*—more especially those which are connected with the animal propensities and appetites. Raising the gourmand's learned name for his art to the dignity of a mental science—*Gastro-nomy* ought to form a portion of the phrenologist's province, and Cephalo-gastro-phrenology would be a high-sounding sesquipedalian title, more comprehensive, and fully as euphonious, as Mesmero-phrenology, or Phreno-mesmerism.

In the instance of Alimentiveness or of Amativeness, the organs of which phrenologists believe they have found in the head, would it not be more natural to look for them in the region where it has been assumed that the instinctive mind resides and makes provision for the preservation of the individual, and the continuation of the species? For such important ends the presiding *genius loci* cannot, as in matters of digestion or secretion, accomplish his object without the aid of his colleague, the *Will* (another name for the rational mind); and he therefore sends a message, through the sympathetic nerves, to the encephalon. But that the instinctive spirit, or mind, is capable of thinking for itself, and of consulting the good of the *corporation*, may be inferred from what is occasionally witnessed in cases of dangerous illness, where the patient is seized with an unaccountable craving for some particular article of food or drink, and recovers after the doctors, *but not Nature*, have given him over. In like manner, other patients feel and express a conviction that they will not survive, and predict their own death, when their medical attendant sees no cause for alarm; and there are many instances on record, of military officers, who had boldly faced death in the field in many actions, being overcome with a presentiment that they would fall in some particular battle, which was verified by the event. This faculty of presentiment seems to depend on a peculiar state of the nervous system, how induced we know not, and is experienced in our waking hours, as in the instances above referred to, and also in sleep, of which we have many well authenticated cases. The same faculty appears to be called into activity by the mesmeric process, in certain stages of which the patient is said to have described with accuracy internal complaints of his own and others, to have prescribed efficient remedies, and to have foretold coming events. Perhaps the discovery is reserved for another Gall or Spurzheim, that the nervous matter of the abdominal ganglia, like that of the encephalon, performs certain appropriate functions in the

animal economy by distinct and separate organs; and we may yet live to see the plexus solaris mapped out after the fashion of a phrenological bust! The gastronomist, whom we now recognize only as a follower of Epicurus, will then exhibit to us the organs of *intuitiveness*, *therapeutiveness*, *telescopiciveness*, and *predictiveness*; and we shall no longer wonder at the skill of the uneducated Galen or bone-setter, generally the blacksmith or shoemaker of some obscure village, or of the sibyl and *spae-wife*—an itinerant vender of small wares—often deaf and dumb—who expounds what is written in the book of fate! In all such extraordinary characters the gastrologist will, doubtless, be able to shew, on a *post mortem* examination, that they had been gifted by nature with powerful organs of the kind supposed.

Visionary as this anticipation of the march of *psychological enterology* may be deemed at present, the time may come when the doctrine of an *inferior* mind—an intestinal and intelligent spirit—the Archæus, in short, of Van Helmont—will be recognised by the philosophical world in general, and take the place of the *vital principle* which now serves to explain all the phenomena of life. This word *principle*, like its fellow, *imagination*, is most convenient on all occasions when we attempt to reason about what we do not know. If we have a *principle* of vitality, why not a principle of thought, of judgment, of memory, or of every other mental faculty? The violin, or any other musical instrument, possesses a *principle* of intonation—a power of discoursing sweet sounds—but it requires the hand of a musician to bring it forth. Even so in the human frame. It may, and does, possess all the *principles* and *powers* which we attribute to it; but who can shew us the invisible musician who alone can make the instrument speak? What says Abernethy, in his *Reflections on the Systems of Gall and Spurzheim*? “Of the unity of that which perceives, attends, thinks, decides, and wills, we have a consciousness which no argument can annul, and which inquiry only strengthens. The consideration of the phenomena of mind, as well as of the phenomena of life, equally enforces the opinion of their *distinct* and *independent* nature. Uneducated reason, and the utmost scientific research, alike induce us to believe that we are composed of an assemblage of organs formed of *common inert matter*, such as may be seen after death—a *principle of life and action*—a *sentient* and *rational faculty*—all intimately connected, yet each distinct from the other.” I cannot think that this is a very satisfactory theory. And, after all, what are those abstract terms, of *mind*, *matter*, *principle*, *essence*, unponderable and invisible nervous or electric *fluid*, but the *x*, *y*, *zeds* of the algebraist—the sym-

bolts of unknown quantities or qualities, with which metaphysicians work out their theorems, but which seldom or never yield determinate and positive answers? The idealist, the materialist, the *zoist*, may dispute, if they please, about the relative *value* of their mental calculus; but as to the real nature of that which is obviously beyond human reason to comprehend, they must, I fear, be content to remain in darkness—to “wait the great teacher Death, and God adore.” Your obedient servant,

AN OLD SUBSCRIBER.

DUNDEE, February 1844.

V. Letter from Mr Combe to a German Sculptor settled in Rome, on the Application of Phrenology to the Fine Arts.

VENICE, 12th May 1844.

DEAR SIR,—Your letter of the 23d of April [criticising the first article in the *Phrenological Journal* for that month] was delivered to me when I was in the midst of my preparations for leaving Rome, and I could not then answer it; but I now avail myself of my first leisure day to send you a few observations in reply. Permit me, however, to mention, that although I understand a little of the German language, I have never thoroughly mastered the reading of the German written character, and, in consequence, have experienced some difficulty in decyphering your letter. If on any topic I have misunderstood you, be so good as to ascribe my errors to this cause.

1st, As to the extent to which Phrenology is applicable to the Fine Arts, I beg leave to observe that, before any one can pronounce a sound judgment on this point, he must know not only *Art*, but *Phrenology*. I find, that in proportion as an artist is acquainted, *intimately and practically*, with the latter, he appreciates highly its utility to the painter and sculptor. Those who have only some crude conceptions concerning it, view it as very unimportant for any purpose; and this is natural; for few men can justly estimate the use of any science which they do not understand. You and I, however, need not dispute upon this subject; for if those artists who study and apply Phrenology, improve their works by it, their success will, in time, settle the question of its value to Art.

2dly, You remark that the ancients, without Phrenology, produced works which are unrivalled, and that Art will be more likely to prove useful to Phrenology than Phrenology to Art. No one doubts that the ancients produced admirable works of art, but they did so, not by departing from, but by fully adhering to nature; and Phrenology is the knowledge of human

nature, in so far as mind is connected with body, reduced to the form of a science. According to my observations, every work of the ancients, which is really excellent, conforms to the principles of Phrenology: it seems to have been modelled after nature, and Phrenology is a description of nature systematised. But the ancients occasionally deviated from nature, and produced imperfect works; and these are at variance with Phrenology. When the moderns, under the inspiration of genius, have followed nature, they also have produced works of first-rate merit, which likewise conform to Phrenology. But, like the ancients, the moderns have also deviated from nature and from Phrenology; and in such instances have failed. The use of Phrenology to the artist consists in this,—that it presents him with a system of knowledge which enables him to understand what Nature means by her forms, and also the relations between her different parts; in other words, it reveals to him scientifically the *meaning* of the forms of the head, and their connections with the character and expression of the body, and puts it in his power to deal with these elements of his art *scientifically*, instead of *empirically*, which last is all that a *mere observer* can accomplish.

3dly, You are mistaken in supposing that I have referred to Mr Steinhäuser's group of Hero and Leander. Not one word of my description is applicable to it; and if you have mentioned to him or to any one else, that I have criticised it, and fallen into the very palpable blunders which you ascribe to me, I beg the favour of you, as an act of justice equally to him and to me, to correct the mistake, and make it known that my remarks apply to an entirely different group.

4thly, In regard to my observations on the female model, and on the three busts of her, allow me to mention that several artists in Rome who had employed her, concurred in representing her dispositions to be such as I have described them; and one of them, in opposition to your statement of the reason of her imprisonment, assures me that she is not licentious in her conduct, but, on the contrary, "the only virtuous model in Rome." If I have been misled in my information concerning her character, I am obliged to you for your attention in correcting it; but I observe that it is of no importance to the present subject whether your account of her dispositions, or that of these other artists, be the true one. I did not advert to her head and conduct as a proof of the *truth* of Phrenology, but alluded to her head, and (be her dispositions what they may) to the three busts of her, as an example of the little attention which some artists pay to representing accurately the natural forms of the head in their busts. It is my conviction, from what I

saw in your studio, (and it is confirmed by your letter), that you do not view particular forms of the head as indicative of particular mental dispositions and talents, and do not believe in any natural connection between these particular forms and particular expressions of the countenance; and that, therefore, you did not aim at copying the peculiar forms of the head of the model accurately. If you did mean to do so, then it is a question of fact between you and me whether you have actually done so or not. You say that I could not judge without having placed her head side by side with the bust, and instituted a minute comparison. On the other hand, I venture to say that it was not necessary for me to do this, because the differences were so striking, that any ordinary observer, accustomed to study the particular forms of the head in reference to the dispositions connected with them, could perceive and remember them; and this remark applies to the other busts, as well as to yours. But you are well aware that it is a rule in philosophy never to attempt to determine a point by mere argument, which it is possible to settle decisively by an appeal to facts. If, therefore, you had placed the model beside your own bust, and compared her head minutely with it, and had then written to me that you had found it to be an accurate copy, this *fact* would have been more to the point than all the arguments you use to prove that my observations could not be correct. If you will still place the bust and head together, and ask Mr Laurence Macdonald (who is accustomed to study the particular forms of heads) to be present when you compare them, I will publicly acknowledge my errors, and apologise to you, through the press, if you (with his adherence to your opinion) find them to correspond in the particular forms and proportions which give specific character to the head, and which, of course, confer value on a bust, as a representation of an individual.

5thly, You say that you cannot consent to circumscribe art by the trammels of a *hypothetical* science; and that you regard Phrenology to be such, and, as such, that you will oppose it. You are quite justified in declining to circumscribe art by a hypothetical science; but you must allow me again to observe, that, as you have not studied Phrenology, you are premature in deciding that it is a hypothesis. Some of the applications which I have recently made of it to art are new, and open to discussion; but the basis on which they are founded, namely, Phrenology itself, is *not* a hypothesis, but the statement of well ascertained facts. Indeed, if you had known its actual condition in France, Great Britain, and the United States of America, you would not have characterised it in such terms.

So far from imposing trammels on art, Phrenology will set it free from those trammels under which it has long laboured, and under which it is still in bondage. It is well known that art is governed by the authority of the ancients, and of the great masters among the moderns, and that very few artists can tell on what principles either the ancients or the great moderns proceeded in their practice. So far as my information extends, there is neither a philosophy nor science of art; on the contrary, even in the best treatises on the subject, much is empirical and much conventional. Where reason appears, it too often springs, not from well ascertained principles, but from the instinctive sagacity of the individual author. The public taste is more or less conventional; and in Rome I saw abundance of evidence that conventionalism still exercises a powerful influence over many studios. What the ancients, and Michael Angelo, Raphael, Canova, and Thorwaldsen have done, must be followed by every artist, each in his own line, and according to his own taste and talents; but what the principles of nature are, or what are the links which connect the works of these great men with nature, is very imperfectly understood. Phrenology will substitute principles founded in, and demonstrable from, nature, as authorities in art, instead of these names; and it will enable the student to apply the torch of reason and of truth to the works of every age and of every master, and also to guide his own steps by their beams. This surely will be giving freedom to art, and not placing trammels on its practice.—I am, &c.

GEO. COMBE.

VI.—*Remarks on Mr Simpson's Letter on Hypnotism, published in the Phrenological Journal for July 1844.* By Mr JAMES BRAID, Surgeon, Manchester. (From the Medical Times, No. 258, 31st August 1844.)

TO THE EDITOR OF THE MEDICAL TIMES.

SIR,—In the last number of the *Edinburgh Phrenological Journal*, I observe an elaborate and clever article by James Simpson, Esq., advocate, on my views and practice in Hypnotism, as personally witnessed by him during his late visit to Manchester. The article, as a whole, does great credit to the perceptive, reflective, and descriptive powers of its learned author. Few could have done so much, and so lucidly, with the opportunities he enjoyed; but it was not to be expected that he should have mastered the *whole* subject at once; and I am desirous, through your pages, of correcting the two

chief errors into which he has fallen, especially as they relate to a department on which I contributed a paper in your 216th Number.*

The points to which I refer, are the different modes of exciting the mental manifestations during the nervous sleep. In your 216th Number, I stated three different theories which had been advanced by others, namely, *1st*, That they arose from the *unexpressed will* of the operator exciting the ideas and propensities in the patients, from the power of the latter to read the secret thoughts and desires of the former; *2d*, That they arose from a magnetic or peculiar stimulus passing *directly* from the finger of the operator *through the skull*, and stimulating the *portion of brain immediately subjacent to the point of contact*; *3d*, Arbitrary association, by a system of training, or to previous knowledge of Phrenology. I then adduced, what appeared to me, arguments sufficient to prove the untenableness of the first two theories; and, whilst I admitted the possibility or probability of the third, still I held it to be an arbitrary and artificial system, compared to that which I have adopted, as the most natural and simple of all which have yet been propounded, because arising from the anatomical relations of the physical frame. I endeavoured to explain the whole on the laws of sympathy, and association of ideas, connected with automatic muscular motion, which I shall presently explain briefly.† . . .

It is necessary here to explain, that, at what I call the *second* stage of sensation during Hypnotism, the muscles subjacent to any point titillated instantly have a tendency to contract, or the patient manifests a tendency to *lean against the point touched*; and then the tendency to self-balancing, so

* Mr Braid's paper, here referred to, was reprinted by us, at page 18 of this volume.—ED. P. J.

† We omit the explanation, as it has already been repeatedly given in this volume, pp. 21 and 266. By stimulating the muscles of expression of various emotions, Mr Braid, as our readers will remember, excites in the mind those feelings which usually precede the muscular actions. With respect to some of the cerebral organs excited by touching the head over them, the theory appears not inapplicable; but in the case of such organs as Veneration, Benevolence, Conscientiousness, Imitation, Tune, and Constructiveness, it is difficult to see in what manner excitement of the muscles over these can rouse the faculties.

We take this opportunity of expressing our obligation to Mr Braid, for the ready kindness with which he lately exhibited to us several interesting hypnotic cases in and near Manchester. The phenomena exhibited were of the kind which Mr Simpson has graphically described in our July number. In particular, we saw the "reversed manifestations" when Mr Braid touched the head over the organ excited, as well as when he touched the muscles of expression, while the patient was in what he stated to be the third stage of Hypnotism.—ED. P. J.

remarkable in somnambulist patients, calls into action certain associated combinations of muscles; and, finally, as already explained, such muscular action or attitude creates or excites a corresponding idea in the mind of the patient, through the laws of sympathy and association.

In illustrating the above proposition to Mr Simpson, I confined my examples to a few of the more leading and prominent feelings, believing *that* to be the mode calculated for *most* rapidly conveying to him my views of my subject. I find, however, at page 269, that he erroneously alleges that the eight he there names were "apparently *all* the feelings that Mr Braid could excite muscularly." In reply to this, I beg to state, that, in addition to the eight referred to, Nos. 2, 9, 11, 12, 17, 18, 19, 20, 21, 22, 32, 33, may be excited by *muscular action only*; and *any* of the others, by proposing a leading question, *combined with contact with any part of the body*.

The other point on which Mr S. is at fault, he refers to at page 271, namely, the *inversion* of the results obtained by manipulating the respective points during the *third* stage of sensation, from what are realised during the second stage. His misapprehension here has arisen entirely from *not having made himself master of my definitions of these two stages*, which I shall now quote from page 75 of your 216th Number:—

"The *second* stage is that where there is increased sensibility and slight rigidity, with a tendency to contraction in the muscles immediately subjacent to the point touched or titillated. The *third* stage is that where there is rigidity of all the muscles, or *rigid* catalepsy, with *diminished* tactual sensibility. In this stage, the patient may be pricked or pinched with little or no feeling, but continued gentle pressure or friction will *reduce the rigidity in the subjacent muscles*, and the member will gradually be drawn in the *opposite* direction, in consequence of the continued *undiminished* action of *their antagonists*."

The emotion excited by operating during the *second* stage, may be called the *direct* mode; that during the *third*, the *indirect*, because the latter is excited *by reducing the power of the antagonist muscles*, whereas, in the former, it is from the stimulus being applied *directly* to the particular muscles to be excited.

The fact of the opposite manifestations resulting from manipulating the head in the *third* stage, to what we realise during the *second*, clearly proves that the results do not arise from a stimulus conveyed *DIRECTLY from the point of contact to the SUBJACENT PORTION OF BRAIN*; but as the effects on

the muscles are inverted (or reversed), so ought the points manipulated to be changed (or reversed), to produce the intended results. Now, this is precisely what happens,—the *same muscular action being excited from opposite points*, both in the head, trunk, and extremities, in the one stage, from what happens in the other. Still, however, the mental feeling is excited along with this muscular action, *however the latter has been excited*; and this is, I think, strongly corroborative of my theory.

I trust these remarks are sufficiently plain to make it obvious to any one, that my having stated that, “in the third or rigid and torpid stage of Hypnotism, the manifestations are reversed,—the lower organs bringing out the higher manifestations, and *vice versa*,”—involves no inconsistency, neither does it warrant the inference at page 272, “On his own theory of suggesting ideas or feelings by stimulating certain muscles, the notion of inversion seems an absolute inconsistency.” The arguments quoted in the last paragraph, are sufficiently explicit to clear up this point in my favour; and, in proof of the facility with which this may be demonstrated, I may remark, that on the first patient I operated on (after reading Mr Simpson’s paper), I called the attention of a friend to his remarks, and demonstrated to him the *inversion* both on the head, trunk, and extremities; nay, I even exhibited the opposite manifestations on the opposite sides of the body at the same time, by manipulating alternately the *same relative points in opposite sides of the head, trunk, or extremities*. This, of course, was done by permitting the whole frame to pass into the *third* stage, and then rousing only one-half till it was in the *second* stage. In the evening of the same day, I illustrated the same practical facts to the entire satisfaction of Mr Scott, a practical phrenologist, well known both to Mr Simpson and to Mr Cox, editor of the *Phrenological Journal*. The experiments in this latter case were performed on two patients who had never been so tested before, and who had never even seen or heard of such experiments; nor was there any auricular suggestion given as to what might be expected.

But, moreover, there is a particular state of the *reflective*, as well as of the *perceptive*, faculties, requisite to insure the success of these experiments. Thus, for some time after passing into the sleep, the memory and judgment are sufficiently active to enable the subject to reason on the natural instinctive tendency of the perceptions,* and to control or direct

* We do not exactly understand this phrase.—Ed. P. J.

his actions accordingly. In this state, the subject will remember, after being aroused, all that has happened; and, during such stage, the attempts to excite mental manifestations will generally fail, unless with such as are quite in accordance with the *will of the subject*. When, however, the subject lapses into the deeper stage—during which he will *not* remember, *when awake, what had been done or said*—the reason seems also to be less active; whereas the imagination has become more vivid, and the consequence is, that he obeys the dictates of *instinct* rather than of reason and reflection. Every idea now suggested partakes of all the attributes of present reality; and, accordingly, the subject acts as during a fit of monomania, being entirely absorbed in some particular contemplation, or in the execution of some special act; and hence the remarkable vigour and precision of such acts. Of course, those subjects—and there are many such—who do not pass into this deeper stage, cannot properly exhibit these manifestations which are so characteristically and beautifully done by those in the deeper stage.

I shall, however, give an additional illustration, which, I think, cannot fail to make any one comprehend my meaning, both as to *how* and *why* certain attitudes are produced in the *reverse* order, in the *third* stage, from what is realised by the application of the same means during the *second* stage. Let us suppose a spring fixed perpendicularly, with two cords, passing over two pulleys, placed to the right and left; and that one end of each cord is made fast to the point of the spring, and the other to scales for receiving weights. The two scales being loaded with weights, and equipoised, of course the spring will maintain its perpendicular position; but, if additional weight is put into the *right-hand* scale, the spring will assume a corresponding inclination, from the greater or additional weight drawing the spring in that direction. But, supposing that, instead of loading the *right-hand* scale with this *additional* weight, an equal amount *had been taken out of* the *left-hand* scale, there would still have been the same loss of equipoise,—an equal amount of inclination of the spring from the perpendicular; and this change would still have been in the *same direction*, as happened in the *former* experiment, namely, to the *right*. There would thus have been produced the *same amount, and the same direction, in both experiments*; but the former I call the *direct* mode, because it arises from an *addition* of force on the right, *drawing* the spring in *that* direction; and the latter I call *indirect*, because, in this case, it arises from a *diminution* of the *antagonist* power, or that on the left, *permitting* it to be drawn in the *opposite* direction.

Remembering the opposite results, mental and physical, which arise from manipulating patients at these two different stages, and the modification which is characteristic of what I call the *first stage*; and keeping in view, also, the important fact, that these different stages *gradually merge into each other*, and, consequently, that it is only when the *exact nick of time is hit for manipulating, we can insure the successful and characteristic manifestation of the feelings* at first trials, we are furnished with a pretty rational solution of the cause why so many patients had been manipulated or handled, for so many years, without the characteristic feelings having been excited and recorded, as has happened within these last three years, when manipulations have been made, and patiently persevered in, with the hope of eliciting them.

There can be no doubt of the power we possess of rousing the various feelings and mental manifestations, during Hypnotism, through muscular excitation only, through the laws of sympathy and association of ideas. But, in this manner, the *same* muscular motion may excite *different* feelings and ideas in the minds of *different patients*, according to their previous occupation and habits in respect to such physical efforts; *e. g.*—set the subject to the exercise of moving his hand and arm with a rotatory motion, as if turning something, and then put the question, “What are you doing?” I know, from experience, that the answer will be in accordance with the usual ideas and occupation with which such motion is associated in such an individual’s mind, during the waking condition. Thus, an Italian boy would think he was grinding an organ; a cook, that she was winding her jack or coffee-mill; a blacksmith, that he was turning a grind-stone, or some other wheel he was accustomed to drive; a reeler, that she was winding; a person, accustomed to turn an organ for psalmody, would be inspired with devotional feeling; another, accustomed to playing or hearing waltzes on the same instrument, would think of dancing; and so on. It thus plainly appears that, through the laws of sympathy and association, connected with muscular action, you may excite various feelings from the same point, according to circumstances. On this ground, therefore, I still consider that none of the experiments hitherto instituted give any decided proofs, of themselves alone, either *for* or *against* Phrenology, or the existence of separate organs in the brain, for the manifestation of each of the mental functions. However, as it is the peculiar feature of this excitable state of the nervous system, that the mind should manifest itself as entirely absorbed in whatever individual passion or emotion it may be directed to, it appears to me to be quite

possible to institute a series of experiments which might determine the relative powers or intensities of the feelings and propensities, which, being afterwards compared with the phrenological indications and known character of the subjects, would be a more decided test for or against Phrenology than any hitherto applied. I intend, shortly, to perform such a set of experiments, with every possible precaution to guard against deception. They shall be performed before a number of respectable and intelligent gentlemen, when a faithful and minute record shall be taken for publication. This appears to me to be the only mode of determining this question in a satisfactory manner. The discrimination of what is true from what is erroneous, is my sole object in entering upon the inquiry; and my motto shall be

“ Nothing conceal,
Nor set down aught in malice.”

I remain, Sir, your most obedient servant,

JAMES BRAID, M.R.C.S. Edin., &c.

3 ST PETER'S SQUARE, MANCHESTER,
17th July 1844.

II. CASES AND FACTS.

I. *On the Reputed Head of Oliver Cromwell.* By Mr C. DONOVAN.

Of no man, perhaps, who has ever occupied so large a space in the world's thought, have the judgments both of his contemporaries and of posterity been so various, and so opposite, as of Oliver Cromwell. He was the idol of his own family, and he found great men to love and to trust him. Milton knew him, and praised him; the great and good Hale served him as Chief-Justice; the spotless Howe and Owen officiated as his chaplains; and the patriotic and illustrious Blake wielded under him the truncheon of that navy, which then, as now, made “the Ocean Queen” secure at home, and revered abroad. But the vulgar of men, then, as now, (and some who may not be so classed,) have deemed him “a fierce, coarse, hypocritical Tartuffe, turning all that noble struggle for constitutional liberty into a sorry farce played for his own benefit.” That the head of such a man must be an object of the liveliest, the profoundest interest to the phrenologist, will be instantly admitted;—but what phrenologist has ever looked upon that head? Reader, I do verily believe that I have

looked upon that head. Last winter, during my sojourn in a provincial town, where I was engaged in the delivery of a course of lectures on Phrenology, I heard it affirmed that the head of Oliver Cromwell was still in existence, and in the actual possession of a gentleman residing near London. My surprise and incredulity on hearing this spoken of as matter of fact, were naturally great. My informant was a clergyman, and through his interest I had the good fortune, on my return to London, to become acquainted with the gentleman in whose possession the relic now remains; and who, with kind and ready courtesy, allowed me a deliberate and ample inspection. That gentleman fully believes the skull to be that of Oliver Cromwell, and were I at liberty to refer to him by name, it would be seen that his station, education, and character, alike forbid the remotest suspicion of fraud.

It is perhaps scarcely necessary to remind the reader, that the body of Cromwell, which had undergone the process of embalming, was, together with those of Ireton and Bradshaw, disinterred, after the Restoration, in 1661, and hanged at Tyburn, where the bodies remained a whole day upon the gallows, until sunset; that they were buried under the gallows; and that the heads were struck off, stuck upon pikes, and placed upon the top of Westminster Hall.

The tradition handed down, in print and MS., along with the head in question, and now in the possession of its owner, is this:—That, at the latter end of the reign of James II., it was blown off one stormy night from the top of the Hall, and taken up by the sentinel on duty, one probably of the many persons whose loyalty had been alienated by the conduct of that monarch and his brother,—and detained, in spite of a proclamation issued by the Government, commanding its immediate restoration. It was subsequently sold to one of the Cambridgeshire Russells, a family united to that of Cromwell by three distinct marriages within the space of twenty years; through which family it descended privately, along with the box in which it is now deposited, until it came into the hands of the well-known Samuel Russell, who exhibited it publicly for money, and ultimately sold it, in April 1787, to Mr Cox, the proprietor of the celebrated museum in Spring Gardens. Mr Cox never exhibited the head, but kept it in strict privacy: on disposing of his museum, he sold it to three joint purchasers for L.230, and these individuals, being violent democrats, exhibited it publicly, in Mead's Court, Bond Street, at the period of the French Revolution, about the year 1799, charging half-a-crown for admission. The MS. states that the latest survivor of these three persons fell from his horse

in an apoplectic fit, of which he died ; and that the head, having become the property of his daughter, was by her sold to the father of its present proprietor, who, from a memorandum in his father's hand-writing, has permitted me to make the following extract :—

“ June 25. 1827. This head has now been in my possession nearly fifteen years. I have shewn it to hundreds of people, and only one gentleman ever brought forward an objection to any part of the evidence. He was a member of Parliament, and a descendant, by a collateral branch, from Oliver Cromwell. He told me, in contradiction to my remarks that chestnut hair never turned grey, that he had a lock of hair at his country-house, which was cut from the Protector's head on his death-bed, and had been carefully passed down through his family to his possession ; which lock of hair was perfectly grey. This gentleman has since expressed his opinion that the long exposure was sufficient to have changed the colour of the hair.” *

In the same memorandum, it is attested that the late Oliver Cromwell, Esq., a descendant of the Protector, compared this head with the original cast of that of his ancestor ; and after measuring, with compasses, the proportions of the features, both of the head and of the cast, declared that their perfect correspondence satisfied his mind of the genuineness and identity of the skull. To this testimony may be added that of Dr Southgate, late librarian to the British Museum, who, after a very attentive comparison of the head with several medals and coins, expressed himself to the joint-proprietors already referred to, thus :—“ Gentlemen, you may be assured that this is really the head of Oliver Cromwell.” The celebrated medallist, Mr Kirk gave his opinion in writing as follows :—

“ The head shewn to me for Oliver Cromwell's, I verily believe to be his real head, as I have carefully examined it with the coin, and think the outline of the face exactly corresponds with it, so far as remains. The nostril, which is still to be seen, inclines downwards, as it does in the coin ; the cheek-bone seems to be as it was engraved ; and the

* In an article in the *Dublin University Magazine* of April last, it is stated, that when the coffin of Charles I. was opened, and a lock of his hair cut off and washed, it was found to be of a bright brown colour ; though it was known that at the period of his death his hair was “ a grizzled black.” This change may be attributed to the influence of the materials used in embalming.

colour of the hair is the same as one well copied from an original painting, by Cooper, in his time.—JOHN KIRK.—Bedford Street, Covent Garden, 1775.”

The foregoing testimony was further corroborated by that of the late eminent sculptor Flaxman, who, before he saw the head, declared, that if it displayed one certain feature which he knew to be peculiar to all the Cromwell family, and which was most strongly marked in the Protector, he should recognise it as the head of Oliver, independently of the evidence to be derived from its other peculiarities. This feature was a particularly straight lower jaw-bone. The peculiarity was immediately recognised, and produced complete conviction of the genuineness of the head, in the mind of Mr Flaxman.

In recapitulating what may be termed the internal evidence in favour of the genuineness, both of the head and of the documentary testimony by which its authenticity is supported, I have to state, that it is still upon the spike on which there is every appearance of its having been originally placed, and that a portion still remains of the staff to which the spike was affixed by two clasps, somewhat like the clasps of rude hinges. This wooden part bears evidences of having been broken off, after undergoing a long process of decay; and it is perforated by worms, which, according to the opinion of a competent authority, were of the same species as those which have preyed upon the head itself. The three objects, viz., the portion of the shaft, the spike, and the head, appear as if they had shared the same fate for a great number of years.

But the capital fact on whose evidence the claims of this interesting relic rest, is one to which there is no parallel in history. It is this—the head must have been embalmed, and must have been so before its transfixion. *The like conditions, it is believed, cannot be predicated of any known head in the world.**

* See notices of this head in the *New Monthly Magazine*, vol. iii. pp. 70, 110, 172, 349. The last of them is the following:—

“ ‘A Constant Reader’ from Eton, writes as follows:—‘ Having lately visited the Ashmolean Museum at Oxford, I was rather surprised at being shown the skull of Oliver Cromwell, which piece of antiquity was positively averred to be genuine. The account given by your correspondent T. C., in his letter inserted in the last April Number of your interesting Miscellany, is perfectly irreconcilable with this. Some farther light may, perhaps, be thrown on the subject by him, after your insertion of this.’ ”

“ In a matter of this kind, we cannot for certain decide if the Ashmolean Museum or T. C. be correct; but we believe that the latter has al-

The "proofs in supplement" (to borrow a phrase of the ancient Jesuits) are derived,—*First*, From the state of the cartilaginous part of the nose, which, probably from the careless mode of chopping off the head, was flattened down upon the right cheek, where it has stuck. Now, had any fraudulent individual procured and embalmed a head, for the purposes of such an imposture (a most hopeless, as well as improbable scheme), it is certain he would have selected one which bore as much as possible a look of verisimilitude; and it is extremely improbable that he would have sought to obliterate any likeness to the original which might exist, by knocking flat the nose. *Secondly*, There is an obvious hole exactly where Cromwell had the well-known wart on his right brow, the excrescence having dropt out. The state of the beard, even now, is such as to show that the deceased had worn it long on his cheeks and chin, and on his upper lip, up to the time of his death. During the last illness of the Protector, he became timid and suspicious, and would not suffer himself to be shaved. His beard, which, during health, he had worn in a particular type, grew promiscuously on his face, and to a considerable length, so that when the cast was taken after death, his relatives objected to it,—the presence of the beard having much diminished the resemblance to the countenance, as they had been accustomed to see it.

In viewing certain objects for the first time, we are often subject to the reception of impressions too rapid to be analysed, yet too strong for rejection; such was the kind of impression of which I was conscious on first seeing this putative head of Cromwell. I felt, rather than understood, its genuineness; and this feeling has been aggrandised and fortified into an undoubting conviction, by a minute and patient

most incontrovertible evidence on his side: for we have both heard the history of the embalmed head and seen it, and little doubt remains in our minds upon the subject. We believe the skull in the Museum, therefore, not to be Cromwell's. Might not such learned doctors of Oxford as are disciples of Spurzheim, be able to decide this point, by an inspection of both? Perhaps the skull in the Museum might have been Ireton's or Bradshaw's, whose bodies were not embalmed, as Cromwell's incontestably was. A perfect adept in Phrenology must discover in a moment the organ of ambition in Cromwell, the military organ in Ireton, and that of low chicanery in Bradshaw, and thus speedily decide the question, or the value of that science is surely worth but little!"

We should be glad to learn some particulars about the skull in the Ashmolean Museum.—Ed.

examination of its indications of the cerebral organs. The following are the dimensions which I have had an opportunity of ascertaining: but the head is not in a state to admit of much handling; and as the coronal region was sawed off, and, though replaced, is now loose on the spike, perfect accuracy in some of the measurements by the callipers cannot be attained.

The circumference of the skull over the occipital bone, and round the superciliary region, is 22 inches. From Destructiveness to Destructiveness, $5\frac{1}{8}$. From the opening of the ear to Firmness, $5\frac{1}{4}$; to Benevolence, $5\frac{1}{8}$; to Individuality, $4\frac{1}{4}$. From Individuality to the occipital spine, the space, over Firmness, is $12\frac{1}{4}$ inches.

Considering the great force of character by which, in the three great classes of the faculties, this extraordinary man was distinguished, it is probable that a theoretical phrenologist, little accustomed to the actual inspection and manipulation of *skulls*, would consider the head in question too small to be genuine. I was informed, indeed, that a phrenologist, for whose judgment I entertain the highest respect, had pronounced it to be deficient in volume. Such, however, even at first sight, was not the impression which it made upon my mind. It seemed to me a grand and impressive, yet somewhat repulsive, head; of large, though not colossal dimensions; and the justness of this impression was confirmed by the subsequent measurement. Over the perceptive and the most prominent part of the posterior region, the skull is 22 inches round, and this, too, after the *utmost possible contraction* has been effected in its integuments by exposure to the vicissitudes of our English climate during more than twenty years. I may observe, *en passant*, that in the July Number of the *Zoist*, Mr Atkinson assigns twenty-four inches as the average circumference of well-developed heads, and the other proportions he gives as in supposed accordance with this extent of circumference. This estimate is about as correct as if it had been stated that the average height of the Europeans is six feet two inches, and their average weight fourteen stone. Measured by such a standard as this, Cromwell's skull would indeed be small; but so would the skulls of nine hundred and ninety-nine men in every thousand, of well-educated and well-developed heads. The circumference of that which forms the subject of this inquiry could not, during life, have been less than 23 inches; and as its breadth and height were not disproportionate, it was an *absolutely large* head.

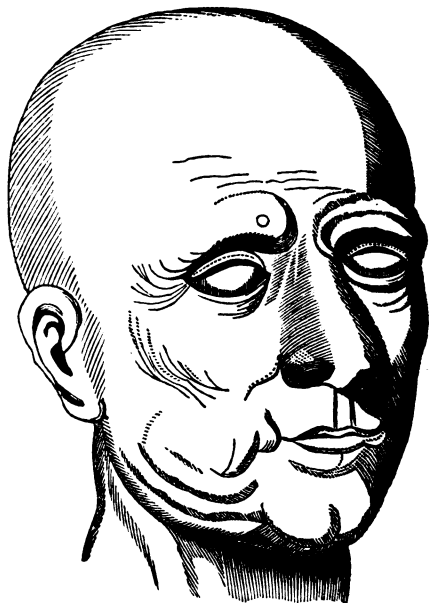
The cerebral development I estimate as follows :—

1. Amativeness, . . .	large.	19. Wonder, . . .	very large.
2. Philoprogenitiveness, . . .	large.	20. Ideality, . . .	full.
3. Concentrativeness, . . .	full.	21. Mirthfulness, . . .	large.
4. Adhesiveness, . . .	full.	22. Imitation, . . .	rather large.
5. Combaticiveness, . . .	large.	23. Individuality, . . .	large.
6. Destructiveness, . . .	large.	24. Form, . . .	large.
7. Secretiveness, . . .	large.	25. Size, . . .	large.
8. Acquisitiveness, . . .	full.	26. Weight, . . .	large.
9. Constructiveness, . . .	full.	27. Colour, . . .	large.
10. Alimentiveness, . . .	full.	28. Locality, . . .	large.
11. Self-Esteem, . . .	large.	29. Number, . . .	.
12. Love of Approbation, . . .	large.	30. Order, . . .	rather large.
13. Caution, . . .	large.	31. Eventuality, . . .	moderately full.
14. Benevolence, . . .	full.	32. Time, . . .	large.
15. Veneration, . . .	large.	33. Tune, . . .	full.
16. Firmness, . . .	full.	34. Language, . . .	.
17. Conscientiousness, . . .	large.	35. Comparison, . . .	large.
18. Hope, . . .	large.	36. Causality, . . .	large.

The accompanying engraving is an accurate representation, or portrait, of the head submitted to my inspection, which, for the convenience of discussion, I shall, during the remainder of this notice, speak of as the head of Cromwell, and assume to be so regarded by the reader. Beneath the part where the wreath has been placed by the artist, in the sketch from which this has been copied, the coronal region was sawed through, for the purpose, I presume, of taking out the brain in the process of embalming; and this part of the skull is so loose on the spike, that it can easily be taken off. In removing the brain, the dura mater was not detached from the skull, either above or below this division; and, though well preserved, the membrane is now in a corrugated and shrunken condition. Little more than the roots of the hair remains in the scalp and face; but there is still enough to shew that it was once of a bright chestnut colour, and of rather a coarse texture. Baldness extended about half way from the intellectual region towards that of Firmness, leaving the organs of Wonder quite bare. The



integuments exist upon the skull and face pretty much in the same way in which they are sometimes seen in an embalmed New Zealand head. The general character of the head is, a very full development of nearly all its parts. There are no *large* and *small* organs, as are seen in some fine heads; in which respect it agrees closely with the bust of the Protector in the possession of His Grace the Duke of Grafton—a sketch of which is given herewith.



To the critical observer of cerebral organization, the coronal region of this skull is of too spherical a form; wanting that graceful elevation, that easy yet obvious ascent from the region of the intellect to that of Firmness, which, in heads of the grandest order, makes this organ the apex of the head. Nevertheless, though the organ does not attract observation, there is no decided want of Firmness. But the region which *commands* attention is that of Wonder, or (as it is, in my opinion, more correctly termed by some writers) Belief.

It is a common mistake with inexperienced phrenologists to expect an organ, or a region, to be excessively developed, if the character of the individual be strongly marked by the activity of the particular faculty or region in question,—omitting to duly note, that one faculty, or even group of fa-

culties, may powerfully influence the character, without creating a development widely inharmonious or disproportionate with the rest of the organization.

In Cromwell's head, the region of the religious feelings is quite as fully developed as a correct knowledge of his character, in a religious point of view, would lead us to expect. The region is globular, though not marked by any conspicuous prominences; and the observation of a connoisseur could not fail to fix itself thereon. Nevertheless, in my judgment, no one would be justified in saying that this is the head of a fanatic. For there is a perspicacity, a clearness of observation, evinced by the well-formed perceptive region, and a strength of reflection in the upper part of the forehead, under the control and guidance of which it is highly improbable that an educated man, not placed under influences acting almost exclusively on the religious feelings, could pass into a state of general mental action to which the term fanaticism might be correctly applied. There is a certain harmonious fulness throughout the organization, which led non-phrenological observers to pronounce the forehead to be "low, broad, and vulgar." This is not the case. The forehead does not appear to be high, because the fulness is maintained all round the anterior region. If the head were flat at the sides, as most high foreheads, as they are called, are, the non-phrenological observer would deem the forehead in question a lofty one; thus the well-proportioned and strong man, rather above the middle height, does not seem to be nearly so tall as he would appear to be, were he slightly formed. Cromwell's forehead is broad and high enough; it is that style of forehead which indicates strength of reflective power, rather, perhaps, than clearness or delicacy; and, served as it was by percepts of more than ordinary vigour, it must have presented a front well fitted "to threaten or command." As a knowledge of his character would lead us to expect, we find in Cromwell's skull Secretiveness and Cautiousness emphatically indicated. The evidences of his Secretiveness are, I believe, very numerous. An anecdote in point, which has never been contradicted, is related in Bucke's *Human Characters*, and it is, in itself, highly graphic. After the execution of Charles, a daughter of Oliver asked him for a lock of the dead king's hair. He refused to grant his daughter's request, pleading his promise to Charles, that *a hair of his head should not be injured*, and keeping this promise to the letter. In the head of Cromwell, the phrenologist, whatever estimate he might have been led to form of the character of the man, in its totality, would expect to find a very full development of De-

structiveness, Secretiveness, Caution, and Wonder (or Belief), as well as of the organs of the intellect. Such are found in the skull we are examining. The region of Wonder is absolutely, as well as relatively, very large. I have seen one or two heads with a more prominent development of this region, but these were monstrosities; and I believe that a larger development has never been seen in any well-proportioned head. In fact, though the apparent projection of this region is not obtrusive, the peripheral expansion assists mainly in conferring on the coronal region that dome-like contour so strikingly apparent in many persons subject to strong religious feelings, and which, in the present instance, is so remarkable as to form a strong corroboration of the authenticity of this interesting relic. Yet this expansion does not violate proportion, nor produce, as very large organs often do, any sensible diminution of the adjacent parts. The skull, though well developed, is not of a graceful type, nor has it that gradual sweep of elevation, from the seat of Individuality to that of Firmness, which is presented by heads of the highest class. Vigour and perspicacity of reflective intellect, strength of will, depth of religious feeling, are all strongly conveyed; but we do not find a sufficient development of that organ, which, controlling in some measure the impulsive action of all the others, gives time for the mediation of accurate observation, calm reflection, and just judgment, before the consent of the mind is yielded to the fearful execution of the worst that man can inflict upon his brother man. And, accordingly, it could rarely be said of this great but erring spirit, when actuated by the sanguinary and vindictive excitements of his dreadful task, that

“ Consideration, like an angel came,
And whipped the offending Adam out of him.”

If not deliberately cruel, Cromwell was, at least, indifferent to the shedding of human blood; and of this fact, his conduct at Dunbar, at Cork, and at Wexford, where it glared out with hideous certainty, will not permit us to doubt,

As I have already intimated, the summitary curve of Cromwell's skull is deficient in symmetry. It was decidedly a round head; and, indeed, when the Cavaliers bestowed the nickname of “Roundheads” upon the sourer fanatics of the opposite faction, they were unconsciously giving utterance to a phrenological fact—a philosophical truth, coeval with the cerebral constitution of man.

But the roundness in Cromwell's skull is not in the base, so much as in the curve of the reflective region and of Cau-

tion. It is in the line which includes the superior lateral and frontal organs that the approach to the spherical form appears, conferring strength of intellect, as much as of propensity. Although well developed in its parts, the coronal region is wanting in *general elevation*; and every practical phrenologist must have had abundant proofs that, without an elevation of this region, commensurate with the concomitant lateral development, no very exalted tone of moral feeling will ever be found.

When the head now under inspection was severed from the trunk, at Tyburn, it was so mutilated by an ill-directed blow of the axe, that there is scarcely a possibility of estimating, with accuracy, the development of the region of the cerebellum; it seems, however, from the volume of the adjacent parts, as well as from other indications, to have been large.

Conscientiousness I find large, much larger than I had expected; a fact which a clerical friend of mine, to whom it was mentioned, strenuously urged on me as evidence unfavourable to the presumption of the genuineness of the head. But I persuade myself that a more candid and a closer examination of Cromwell's character, must lead to a different conclusion. We must bear in mind, that more than two hundred years of knowledge, of civilization, and of social advancement, have shed their blessed influences upon society since that character was formed; and that even his darker vices, his ruthless ferocity, for example, and his dissimulation, do not justify the inference that the man was as wicked as we of this age must become, before we could do the like. To a phrenological eye, the hollow dome of bone before me tells, in language as convincing as it is eloquent, that the kingdom of its occupant's soul was divided against itself. But let us not, as Schiller says, "too querulously measure by a scale of abstract perfection, the meagre product of reality in this poor world," but rather join in the sentiment of a profound and eloquent thinker of our own time, who has done great things in the service of Truth: "I, for one, will not call this man a Hypocrite! . . . Perhaps of all the persons in that struggle, from first to last, the single indispensable one was verily Cromwell. To see, and to dare, and to decide; to be a fixed pillar in the welter of uncertainty; a king among them, whether they called him one or not. Hypocrite, mummer, the life of *him* a mere theatricality; an empty barren quack, hungry for the shouts of mobs! . . . The man had made obscurity do well enough for him, till his head was grey; and now, he *was* there—recognised and unblamed—the virtual King of England.

He who could write to euphuistic Monarchy of Man—could not speak,* could not work, with glib regularity—had no straight stories to tell for himself any where,—but he stood bare—not cased in euphuistic coat of mail,—he grappled like a giant, face to face, heart to heart, with the naked truth of things! Small thanks to the prosperous man for walking upright in the inevitable decencies of these our own times : small thanks to a man for keeping his hands clean, who would not touch the work but with gloves on ; smooth shaven respectabilities, not a few, one finds, that are not good for much.”

The same eloquent and truthful writer remarks, that the insincerities and faults of this man were as well known to himself, as to his God ; but though the sun was often dimmed, the sun himself had not grown a dimness. “ Cromwell’s last words,” says he, “ as he lay waiting for death, are those of a Christian heroic man. Broken prayers to God, that He would judge him,—*He*, since man could not,—in justice, yet in pity. They are most touching words” (touching words indeed, and, I doubt not, as full of sincerity as of pathos). “ He breathed out his great wild soul, its toils and sins all ended now, into the presence of his Maker in this manner. I, for one, will not call this man a Hypocrite.”

To return to the immediate subject of our investigation:—The perceptive region, though fine, is not so fully developed as I had expected to find it, and as it is represented in the mask of the Protector, with which we are familiar, in the collections ; but great allowance must be made for the fact, that the integuments over the superciliary ridge have been dragged downwards, probably in the process of embalming, when the eyes were removed, and the lids sewn down over the sockets. Yet I have found each organ large except *Number*, which is in a doubtful state, arising from the extraction of the eye ; but I think it was moderate. Of the organ of Language, I could make no estimate. On reviewing the estimate of each organ, the practical phrenologist can have no doubt that nearly every feeling and intellectual power had at least a normal state of activity in Cromwell’s head.

That he was a man of strong social, self-regarding, moral, and religious feelings, such an organization places beyond a doubt. But the scientific observer does not find that eleva-

* Yet I find Ideality well developed in the skull, and indeed I am disposed to ascribe the well-known common-place and confused jargon, which pervaded and characterised his public addresses, written as well as oral, to causes unconnected with any imputed deficiency in that organ, although I am disposed to believe that his Ideality was not an active faculty.

tion of the region over the organ of Comparison, which would encourage the hope that Cromwell's was a mind which could sympathise deeply with the afflictions of his fellow-creatures. These broad and strongly formed heads are rarely found with very benevolent dispositions, however capable those endued with such organizations may be of performing acts of kindness to friends, or to those whom they make use of. The generosity which springs from Adhesiveness, Love of Approbation, or self-regarding calculations, or from all those combined, must be carefully distinguished from that unostentatious sympathy with human suffering,—that charity “which letteth not the right hand know what the left hand doeth.” It is not too severe a censure on mankind, *in the present imperfect state of the race*, to say, that for one act of generosity or kindness which springs from pure unmixed philanthropy, and sympathy with human misery, fifty such are performed under the influence of motives which, more or less, may be designated as selfish.

After having stated my entire and unhesitating conviction that the head of which I am now writing is indeed the skull of Cromwell, I shall perhaps raise a smile of incredulity when repeating, that the region of Conscientiousness is well developed, the arch from Firmness to Caution being fully and harmoniously formed. But the scoffers will only be such as have yet to learn the true theory of the human mind. No well-informed phrenologist would expect to find the region of Conscientiousness badly developed in the head of Cromwell. Let me not be understood to assert that, in the ordinary acceptation of the term, Oliver Cromwell was a conscientious man. I entertain no such opinion; I do but affirm that, in order to constitute such a character as his, the faculty which suggests to the mind the consideration of abstract justice, could not have been in a weak state, howsoever its whisperings might have been clamoured down amid the passionate demands of a host of strong feelings, whose specious tones often seem to the hearer to be the voice of equity, and whose pleadings are so frequently supported by the casuistry of the argumentative faculties. “The master Passion of the breast,” whichever it may for the time chance to be, seldom fails to retain the unfailing advocate Reason, which is ever ready to take a retainer in any cause:—

“The merchant's toil, the sage's indolence,
The monk's humility, the hero's pride,
And all alike with Reason on their side.”

That such sense of abstract justice as it is the office of Con-

scientiousness to supply, was an active principle in the mind of Cromwell, is evinced by numerous passages of his life. His rigid and unflinching fidelity to law, in carrying its sentence into execution on the brother of the Portuguese ambassador, the assassin Pagliano, (whom the Protector, in defiance of ten thousand remonstrances, and reasons both of selfishness and policy to the contrary, hanged, like a murderer, as he was,) may be cited in confirmation of this estimate of his character; and perhaps a still higher corroboration of it may be found in his unostentatious, prompt, daring, and complete vindication, and redress, of the obscure Quaker merchant, on whose behalf he wrenched effectual justice from the subtle and reluctant grasp of Mazarine himself, the virtual monarch of France at the time. But alas, we may not ascribe to the faculty of Conscientiousness, which confers the impulse in favour of abstract justice, the power always to obey its own dictates. To this issue farther aid is required, and from several other faculties. Butler's hero, Sir Hudibras himself, in a sarcasm directed against Cromwell's party, says but the same thing:—

“ So no man does himself convince
By his own doctrine, of his sins,
And though all cry down self, none means
His own self, in a literal sense.”

And so does he who spake by the inspiration of a more excellent spirit, when he makes his noble Portia say, “ If to do were as easy as to know 'twere good to do, chapels had been churches, and poor men's cottages princes' palaces. 'Tis a good divine that follows his own teaching; I can easier teach twenty what 'twere good to be done, than be one of the twenty to follow mine own teaching. The brain may devise laws for the blood; but a hot temper leaps over the cold decree.”

I have not in this paper entered into anything like a minute analysis of Cromwell's cerebral organization, nor attempted to establish a complete index to his mind. It would be an easy way of achieving reputation for phrenological skill, to sit in the presence of the head of one whose deeds are before the world, for good or for evil, and make his developments fit our own conceptions, or those which are publicly entertained, respecting the man. Confident and magniloquent many can be, whilst dilating phrenologically upon the living or the dead, whose characters are universally known; but very different is the task of him who has to pronounce upon the abstract developments, unaided by recognised and admitted facts. In the present attempt, I have merely sought to bring whatever knowledge I have been able to acquire of the laws of cerebral

organization to bear upon the subject, in order to test the pretensions of this head to stand accepted as that of so very remarkable a man. But I am not without fear that, in the few brief strictures which I have ventured on the character of Cromwell, historically considered, I may seem to the phrenological reader to have exceeded my own province, or, as lawyers say, to have "travelled out of the record;" nevertheless, I hope to be pardoned, for the sake of the interest inseparable from the subject.

C. DONOVAN.

PHRENOLOGICAL INSTITUTION,
126 Regent Street, London,
September 3. 1844.

II.—*Phreno-Mesmeric Cases; with Remarks on the Theory which ascribes the Phenomena to Sympathy.* By WILLIAM GREGORY, M.D., F.R.S.E., Professor of Chemistry in the University of Edinburgh.

In the present state of the controversy on the subject of Phreno-Mesmerism, it is obviously most desirable that facts should be accumulated to as great an extent as possible; and with this conviction, I beg leave to offer the following brief remarks on a few experiments which I had it in my power to make about a year ago. In making these experiments, I had two objects in view: first, to satisfy myself on the presence or absence of imposture in the patients; and, secondly, to inquire how far the phenomena observed, if genuine, were due to sympathy, or to suggestion from the mind of the operator, acting on that of the patient. I satisfied myself that there was no imposture in the cases which I saw; and I shall, therefore, take for granted the genuineness of the phenomena, and describe only such facts as bear on the second point above alluded to.

The cases examined by me were four in number. Two of the patients were young men who had been repeatedly mesmerised, and in whom phreno-mesmeric phenomena had been observed; one was a girl of 14 or 15, subject to epileptic fits; and the fourth was a little girl of about 11, of the very lowest class, subject for years to chorea, and not only altogether uneducated, but heavy and stupid in a high degree.

No one of these patients exhibited any of the higher mesmeric phenomena: indeed, after many trials, I could observe community of taste in only two; and in one of these community of the sensation of feeling. I could obtain no evidence

whatever of exalted sympathy, or of "occult senses;" in other words, clairvoyance was entirely absent. As far as I could judge, therefore, there was no such degree or kind of sympathy between the patient and the operator, or spectators, as to lead to any manifestations whatever without contact.

In three of the cases, however, the application of the finger of the operator to the head produced certain manifestations. In the case of the epileptic girl, the mesmeric state was induced with remarkable facility; but when I saw her, the touching of her head annoyed her so much, that I did not urge the experiment, and, as far as it went, no distinct manifestations appeared. In her case, to which I need not again refer, the most striking phenomenon was the extreme exaltation of the sensibility to music in the mesmeric state. As soon as a chord was struck, her countenance, which possessed naturally much beauty, and a most amiable expression, lightened up with an expression to which I can apply no epithet so fit as that of divine. I have never seen any head of a saint, angel, or cherub, by any master, which could approach it in loveliness, as it appeared while animated by the sound of music. As long as the music continued, she also moved with remarkable grace, in a measure strictly regulated by the music performed: but a very quick and lively tune awoke her; and, if awaked in any other way, she was for a time uncomfortable and peevish. I mention this case, because in all the others the musical powers were likewise exalted, although not to the same degree, in the mesmeric sleep. *Qu.* Is this always, or very frequently, the case? I may add, that my friend and pupil, Dr J. P. Walker, mesmerised this girl for some time, always awaking her by a lively tune, with the most decided benefit to her health. When I last saw her, the fits, which at first recurred many times daily, returned not more frequently than once in ten days or a fortnight; and the girl was allowed to walk alone, which her parents formerly dared not venture on.

To return to the phreno-mesmeric cases—the most satisfactory is undoubtedly that of the little girl affected with chorea. Dr Walker had mesmerised her several times for the disease, which was much alleviated in consequence, when it occurred to him to try the effect of touch on the organs. Having obtained certain manifestations, he brought the girl to me next day, so that I saw her before she had undergone any training. The idea that she knew anything of Phrenology, or had ever heard the word, is quite inadmissible. I never saw a child of the same age so ignorant; and, as her intellect was much below par, I feel perfectly assured that she was as ignorant of

Phrenology as it is possible to be. Considering the state of her health, and the utter indigence of her parents, I have no doubt, also, that she never saw any exhibition of Phreno-Mesmerism. In this case, then, we have only the choice, apparently, between sympathy, and excitement of the organs by contact, to explain the phenomena.

I found that Destructiveness, Combativeness, Secretiveness, Veneration, Firmness, Self-Esteem, and Love of Approbation, were all readily and powerfully excited by manipulating the organs; and, so far, it must be admitted that there is nothing which might not be explained by sympathy with myself. But I could obtain no results by manipulating the organs of the perceptive faculties; and although this might have been in some measure expected, from the stupidity of the patient, still it is remarkable, that not even the feeblest manifestation should have occurred. It is, however, still more remarkable, that neither Dr Walker nor myself could excite Cautiousness in the smallest degree, although we were both most desirous to see it in action, that we might compare its manifestation with what we had seen in other cases; and, further, while I was manipulating every part of the organ, which was large, without effect, my finger accidentally touched Secretiveness, of which neither of us was thinking, when some one standing by said, "Look at her! what is she doing now?" I looked, and saw her secreting some small object in the folds of her clothes. This girl also shewed increased sensibility to music, and an irresistible propensity to dance to it, the character and expression of her dance, which was most ungraceful, varying with the music.

Now, looking at this case, I confess that I see no reason to admit that sympathy played any part at all. I have already said, that I could obtain no direct proof of sympathy without contact, and in this girl there was not even community of taste with contact. If we are to suppose that contact established a sufficient sympathy to account for the manifestations, why was not Cautiousness manifested in the slightest degree? I may add here, that the same negative result attended my attempts to excite Benevolence.

In one of the young men, I was able to excite almost every organ that I tried; but as he had been several times operated on, and was an intelligent lad, I could draw no sure inference from this. I therefore tried the most bizarre and unusual combinations I could think of, and obtained very satisfactory results, even where I had not the slightest idea what to expect; and these came out so quickly, that I could not imagine even a phrenologist to have been able, in so short a time, to

devise the manifestations. They certainly surprised me, although, of course, I had felt the desire to see something connected with the organs manipulated. But, in this case, I had it in my power to test the idea of sympathy ; for, having been seized with a very violent and long-continued fit of laughter at some of the patient's droll performances, it occurred to me to try whether he would sympathise with my mirth. I accordingly held his hand for at least five minutes, during which I was myself nearly convulsed with laughter, and yet no one could trace in him the slightest tendency to laugh, or the slightest appearance of an effort to suppress laughter. On the contrary, his countenance was grave and unmoved, until the finger was applied to the organ of Gaiety, which never failed to call up a smile or a joke, however grave I might be when that experiment was tried. This same patient did feel when I held his hand, and when my other hand was pricked with a pin ; but I cannot see any reason to suppose that he sympathised with my mental manifestations, even when in contact with me ; while, as I before observed, every attempt to obtain direct proof of sympathy *without contact* failed entirely.

In the remaining case, I was able to bring into action about two-thirds of the phrenological faculties by touching the organs ; *but I found it impossible to elicit any manifestation whatever of a certain number of faculties, although very desirous to do so for the sake of comparison.* I had, in this case, a good opportunity of observing the fact, that when an organ has been once excited to action, it continues to act for some time, mixing up its manifestations with those of organs subsequently excited. Thus, for example, when the organ of Veneration was touched, this young man exhibited in a very beautiful manner the natural language of pure and intense devotion, and commenced a prayer of the most humble and devout character. But when the same organ was a second time excited, after an interval of half-an-hour, during which Self-Esteem, among other faculties, had been excited, and very strongly manifested, I was astonished to see the patient (from whom I expected and anxiously desired to obtain a repetition of the former devotional manifestation, for the satisfaction of a gentleman who had not been present on the first occasion), instead of falling on his knees, with his head bent devoutly forward, as before, standing in an attitude expressive of pride mixed with devotion ; and to hear him say, "O Lord, I thank thee that thou hast made me so much superior to others in knowledge of thee," &c. &c. &c. ; thus presenting a living portrait of the Pharisee in the temple. Now, it is not wonderful that Self-Esteem should have continued in activity, after having been

roused ; but there certainly was no direct or complete sympathy between the patient's mind and my own, when he made the above exhibition. Had such sympathy existed, he would surely have repeated, as I expected and wished him to do, the manifestation of pure veneration.

In reference to this question of the agency of sympathy between the mesmeriser (or spectators) and the patient, it appears to me highly important to notice the very marked and frequent discrepancy between the actual manifestations and those expected by the operator. We cannot surely admit that this occult sympathy, if present, goes no farther than to give the general idea of the faculty to be manifested, leaving the details to be selected on other principles ; on the contrary, if we admit sympathy as the cause, we must suppose that sympathy to embrace every existing mental phenomenon. In fact, this minute and universal sympathy furnishes what is, perhaps, the most satisfactory, but, at all events, the least astounding explanation that has been attempted, of vision at a distance ; as, for example, where the patient describes the house of the operator, known to him alone among the auditors.

But if a similar sympathy existed in the cases above alluded to, it is surely most remarkable, that, in a large proportion of the experiments, the manifestations were altogether unexpected by me or my assistants, as they were either quite different from what we anticipated, or, as frequently happened, very distinct and satisfactory when we had no idea at all of what might be expected ; or, finally, no manifestations whatever could be obtained in certain cases, of organs which were most easily excited in others, and which the operator anxiously desired to excite ; while no difficulty occurred with the surrounding organs in the very same individuals. Again, it is particularly to be observed, that the same operator obtained totally different manifestations by manipulating the same organ in different patients. Thus, for example, when I touched the organ of Weight in the first mentioned lad, he instantly began to fall, his limbs failed, and he expressed the utmost terror of falling into some bottomless abyss. But when, with this exhibition fresh in my mind, I touched the same organ in the young man last mentioned, he, being at the moment in danger of falling off his chair in the mesmeric trance, instantly drew himself up with a deep sigh, and assumed a rigidly perpendicular attitude in his chair. It is quite certain that I expected neither of these manifestations ; for I did not well know what to expect ; but, at all events, they did not depend on full sympathy with my mental state, or they would, in all proba-

bility, have been the same. I conceive the difference to depend on the different organization of the two patients. I might mention many similar results ; but I have stated enough to illustrate the argument. It will be perceived that the objections which I have stated against the idea of sympathy, *in these cases*, apply equally to that theory which ascribes the phenomena to the volition of the operator. In fact, these two theories are essentially the same, sympathy being indispensable to both.

I offer no explanation of the remarkable phenomena of Phreno-Mesmerism. I do not pretend to have obtained any proof that the organs are actually excited by contact ; but, on the other hand, I cannot perceive that either sympathy or volition can explain more than a small part of the facts which I have myself seen. What then ? It is no disgrace to us to acknowledge that we have observed facts which we cannot explain. The grand question is, Are they facts or not ? If they are, it is our duty to study them carefully, to add to their number, and to test them rigorously ; and we need not doubt that the explanation will come in good time. Indeed, in a subject like this, much harm is done by hasty and premature theorising : it warps our mental vision, and it is too apt to give rise to personal and acrimonious controversy. The facts of Phreno-Mesmerism are yet too new and too few to justify us in explaining them dogmatically ; and, for a long time to come, we shall be far more profitably employed in accumulating observations, than in constructing or demolishing theories on the subject.

In several papers, recently inserted in this Journal, I observe that the theories of sympathy and volition, as the causes of the phenomena, are much dwelt upon ; and the writers seem inclined to suppose that these theories, if established, will annihilate Phreno-Mesmerism. Now, if by Phreno-Mesmerism be meant that other theory which ascribes the phenomena to the local excitement by contact, &c., it is true that that theory, in such a case, would be disproved. But, by Phreno-Mesmerism, I understand the body of phenomena themselves, which the rival theories attempt to explain. These phenomena, as facts, must always continue to exist ; and, in my mind, they are not the less wonderful, even if we admit them to proceed from sympathy. Can any thing be more astonishing than that a man should acquire, in the mesmeric sleep, the power of reading the thoughts of the operator, or of the spectators, and that without even contact with them ? Surely this phenomenon is worthy of the most profound re-

search; not less so than would be the phenomenon of vision at a distance, or through a stone wall, if established and admitted as a fact.

To conclude,—we are compelled, by a regard to truth, to admit the existence of the mesmeric sleep or trance; and it is certain that the mental faculties of a patient in that sleep are capable of being excited to very marked manifestations, by causes which, in ordinary circumstances, would have been inoperative. Here is, already, a most fruitful field of investigation. Should our researches prove, ultimately, that contact with the head over the phrenological organs is the exciting cause, then the phrenological localization of the faculties will acquire a new support; and, although this is not required by phrenologists, it may give us additional powers of operating on the minds of non-phrenologists, and thus aid the progress of our science. On the other hand, should sympathy be found the true key to the mystery, that agent, once admitted to the extent which is necessary, will reduce the most astonishing phenomena of clairvoyance to mere matters of course, if not of calculation.

EDINBURGH, 10th September 1844.

III. *Case of William Saville, executed at Nottingham on 7th August 1844, for the Murder of his Wife and Three Children.*

From a biographical sketch of Saville, in the *Nottingham Review* of 9th August, we learn that he was the son of a drunken father, whose wife died in 1817, when her son was about two years old. "The children, left to the care of a cruel and dissipated father, frequently suffered much. Instead of manifesting an increased attachment to his motherless children, Thomas Saville became more and more regardless of their welfare. It was a practice with him frequently, when he went to take his work in at the warehouse, at Nottingham, on a Saturday, to spend his earnings in drunkenness and debauchery, staying in the town till the following week was far advanced, leaving the children to do as well as they could for themselves. Thus the money that ought to have supplied the wants of his babes, was lavished away in riot and drunkenness, and they were left in a state of almost utter destitution. We are told by those who knew them at the time, that they used to lie on a bit of straw, with nothing to cover them but a few old rags. They must have died of

want, had not the neighbours occasionally given them food to support existence. During this period, William—always sickly and ailing until he was about twenty years old—suffered much from sickness, and became subject to a very bad scald head. This was the result of an absence of parental care and cleanliness. He was then sent, for the purpose of being cured, to the Basford house of industry, where, under proper treatment, he improved very much. These remarks are published more with a view to shew the baneful influence of corrupt example on the part of a parent, than from a desire to expose the bad conduct of Thomas Saville. At the same time, we think it may, in some measure, have a tendency to soften down the general indignation which prevails against the unfortunate culprit, as it is quite clear that he has been trained up in ignorance and brutality.” After leaving the workhouse, he became first a farm-servant, and subsequently a stocking-weaver; behaving at this time in a manner far from creditable. For a very short period he went to a Sabbath-school, but not long enough to learn to read. Having married in 1835, he from the very first behaved cruelly towards his wife, and his brutal conduct was extended to the children. Even when near her confinement, he used to kick and beat his wife unmercifully. In 1837 he was imprisoned for three months, for stealing a coat. Last spring he entered the service of Mr Robert Sutton, a stocking-weaver at Radford, where, representing himself as a single man, he paid his addresses to a young woman named Tate, who, however, suspecting the falsehood of his representation, rejected the proposal. It was to facilitate the success of this matrimonial scheme that he committed the wholesale murder for which he suffered. “In Mr Sutton’s service he obtained the reputation of being a very deceitful man, and of being the greatest liar in existence. When caught in any of his numerous falsehoods, he became very violent, and used bad language. It was a common saying in the shop, that he ought to have been named Savage, instead of Saville. When he first went to Sutton’s, he was rather short of articles of clothing, but at the time of his apprehension he had managed to procure several changes of dress. He was very fond of swaggering, and when in the humour, used to tell many fine tales about his ‘ancestors’ and existing relations.

“William Saville was a man who never could govern his sensual appetites. He was always fond of drink, and very frequently got drunk, especially when he could induce others to pay for the liquor. He would sometimes sit drinking in a public-house until it was his turn to pay, and then walk away.

On the Sunday mornings of the first few weeks after his wife went into the workhouse, Saville used to pack up half a pound of sugar, an ounce of tea, and fourpence, in a parcel, which it has since been ascertained he sent to his family. This is supposed to have been for the purpose of keeping his wife quiet: the pence were for the children. On one occasion, Elizabeth Tate saw him pack up one of these parcels. She asked him who it was for. He replied that 'there was an old woman at Arnold, to whom he had promised to make that present every week, and he would continue it as long as she lived.' The practice was soon discontinued." So fond was Saville of change, that after his marriage he resided in no fewer than fourteen houses in Nottingham and the neighbourhood, besides living for a time at Southwell, Derby, and in the house of correction, and leading a vagrant life for months. After his condemnation he behaved with great apparent firmness. It was at the execution of this wretched criminal that so lamentable a destruction of life and limb was caused among the assembled spectators.

The following correspondence about Saville's head has lately appeared in the *Nottingham Review*:—

TO THE EDITORS OF THE NOTTINGHAM REVIEW.

GENTLEMEN,—Having been requested by several persons to make public my phrenological observations upon the head of William Saville, which I examined immediately after his execution, I beg leave to append the following particulars:—

The perceptive faculties were very good. The region devoted to intellectuality was good, sufficiently so for him to have easily acquired the usual amount of information. That portion of the brain devoted to the sentiments was not much developed, with the exception of Firmness and Self-Esteem, which organs were remarkably large. Benevolence was not conspicuous either way. There was nothing in the posterior part of the head which attracted particular attention. The organs of Destructiveness were not in the least protuberant. Combativeness and Amativeness were moderate.

Now, what are we to say to all this? As an individual, I feel quite confounded. Suppose a person with such an organization to be subjected to the manipulations of any intelligent phrenologist; what would he opine? Would not a Gall, or any of his disciples, assert that any man, possessing such characteristics, might perhaps prove an intelligent mechanic—at least, an average husband—a kind father—and a decent member of society? How opposite such a judgment would be to the real fact of the case, must strike the most superficial

observer. In the case of Saville it appears to be **FACTS *versus* PHRENOLOGY**, and **PHRENOLOGY *versus* FACTS**. Which is right? is the question at issue. I remain, Gentlemen, yours respectfully,

WILLIAM SMALL.

NEW RADFORD, *August 7.*

TO THE EDITORS OF THE NOTTINGHAM REVIEW.

GENTLEMEN,—A letter appears in your last paper, from Mr Wm. Small, giving his phrenological observations on the head of William Saville, from which he deduces **FACTS** against **PHRENOLOGY**.

Mr Small has made the whole case rest upon his skill as a manipulator. Without impeaching that gentleman's talents or acquirements, we may ask whether he is sufficiently acquainted with the science? or has given to it that long and patient observation without which a phrenologist would feel himself in great difficulty in coming to a conclusion? As Mr Small is entirely unknown to the phrenological world, he will excuse us inquiring for more data. Has there been a cast taken? Did Mr Small make the usual measurements? And will he be kind enough to publish those measurements? And also give us the temperament? Can he tell us the width of the head at the organs of Destructiveness? If Mr Small will give us these, we shall have some test by which to try the accuracy of his conclusions; and they will be much more satisfactory than his general statements—"that there was nothing that attracted particular attention"—"nothing conspicuous either way"—"the sentiments were not much developed," &c., a vague way of putting down the items from which important deductions are to be made.

Waiting Mr Small's reply, I remain, Gentlemen, yours very truly,

THOS. BEGGS.

LEEDS, *Aug. 14. 1844.*

TO THE EDITORS OF THE NOTTINGHAM REVIEW.

GENTLEMEN,—In your last week's paper I find a few questions from your correspondent, Mr Beggs, relative to the case of Saville, to which I beg leave to reply.

Firstly, There was no cast taken, because I could not obtain the sanction of the governor of the prison. *Secondly*, I made no measurements, because I had had nothing to measure with. It is customary with me to carry a measuring-tape in my pocket-book, but on the morning of the execution I left home with empty pockets, not knowing by what gentry I might

be surrounded. I had also a full conviction that a cast would be taken, and, consequently, that measurements would be useless. But, independent of this, it is very probable that these difficulties would have been surmounted, had not rumours begun to pour in of the lamentable accident which had occurred, and which brought the matter to a hurried conclusion. The temperament of Saville was a compound of the bilious and melancholic. I remain, Gentlemen, yours respectfully,
WILLIAM SMALL.

NEW RADFORD, Aug. 17. 1844.

TO THE EDITORS OF THE NOTTINGHAM REVIEW.

GENTLEMEN,—Allow me to thank Mr Small for the candour with which he has replied to the queries submitted to him, relative to his observations on the head of Saville. It will be quite satisfactory to every person, even to those slightly acquainted with Phrenology; and will excite surprise that the difficulties which prevented him from taking a manipulation, did not suggest the propriety of withholding his imperfect observations from the public. No phrenologist would have ventured to give an opinion so confidently, without offering some data by which others might judge of the skill of the manipulator, and the accuracy of his predications.

Phrenologists have been expected to furnish more than mere individual testimony; and there can be no reason why those who are opposed to them should be exempt from the duty of supplying such proofs as the case may admit, in the shape of casts, or at any rate carefully taken measurements. Mr Small's two letters are quite sufficient to satisfy us that he is not a competent judge of the matter, and, with the discerning few who already recognise the truth and utility of Phrenology, they might be safely left to supply their own comment; but there are a number of persons unaccustomed to examine statements by their evidence, and who, probably, through an existence never devote one hour to the study of science, but take up ready-made opinions wherever they can find them,—who will run away with this, and jump to the conclusion that here is a fact against Phrenology.

Facts similar to these have been pretty abundant, and have always resolved themselves into mistakes committed by those bringing them forward through superficial observation, or want of knowledge. In the case of the Edinburgh murderers, Burke and Hare, it was said that they by no means possessed inferior moral developments; but when brought to the test, it was proved that there were not six criminal heads in the phrenological collection with a lower moral region. In the case of

John Thurtell it was first said that he had a low Destructiveness. An examination of the cast soon exploded that error; and then it was said that Phrenology could not be true, because he had considerable Benevolence; supposing, perhaps, that a man who commits a murder, must have no other organ than Destructiveness. It was found that John Thurtell, who had by no means one of the lowest criminal heads, had been known to give away his last half-guinea to an old companion, who was worse off than himself; but had not sufficient Benevolence to counteract a large Destructiveness, excited by the feeling that he had been grossly cheated by the man he murdered.

In the case of Courvoisier the same things were said, and proved only to be the blunders of parties who knew little about the matter. In this case, there can be no doubt that the discrepancy is between Mr Small and the facts, and not between the facts and Phrenology. I am bold enough to say this from the great want of precision in that gentleman's statements; the want of ordinary precautions in taking the examination; and the meagre, unsatisfactory nature of the details given, as well as the indefinite terms employed. There is no disrespect intended to Mr Small in this. I give him full credit for good intentions and sincerity; but believe him to be mistaken.

In the case of the poor wretch Saville, if the account of his life, as given in your paper, be correct, he was entirely under the dominion of the propensities; and it would have served the cause of truth if his cast had been taken. It is to be hoped that, before long, the interests of science, in which are mixed up the interests of humanity, will prevail over the unworthy prejudices which have hitherto opposed the progress of Phrenology; and that provisions will be made by the authorities to take the casts of criminals, without private individuals having to be put to serious inconvenience and expense in procuring them. In the case of the three men last executed at Derby, Mr Bally of Manchester came to take the casts, and at his own expense added them to his invaluable collection. One day these contributions to science will be appreciated, and society will be prepared to look at the actions of mankind with a milder and more philanthropic temper.

Surely the solemn warning of the last execution will not be forgotten. If executions must continue, and life be offered up to an impolitic and unchristian spirit of legal vengeance, let them be shut out from the multitude. Can we not see that the assembled crowds on such occasions—who meet to exult over the awful death of a fellow being—and pour their horrid yells of triumph upon his shuddering spirit—disturbing

it when other thoughts should occupy the brief moments betwixt him and eternity—can we not see that the same feeling animates the crowd that, under other circumstances, impelled the dying culprit to commit the deed for which he suffered—an excited Destructiveness. The power of an enlightened public opinion ought to be exerted to abolish our capital punishments. The sacredness of human life can never be recognised and acknowledged by the people until governments are taught to respect it.

I need not trespass more upon your space. I feel assured that Mr Small, on reflection, will repent of the precipitancy with which he has given forth opinions hastily formed, upon such imperfect data. If he will call upon me to inspect my collection, consisting of nearly 150 casts, I flatter myself he will find evidence sufficient to satisfy himself of the truth of Phrenology. I am, Gentlemen, yours respectfully,

THOMAS BEGGS.

NOTTINGHAM, *August 26. 1844.*

The accompanying cut is an accurate copy of a sketch of



Saville's head, taken by a friend of Mr Beggs, Mr Reuben Bussey, a young artist of Nottingham, who has paid some attention to Phrenology. So far as it indicates the form of the head, the cerebral development appears to have been of a kind so inferior, that, although Saville had been much better brought up, it would have perfectly accorded with the gross brutality of his character. Even an average brain, if treated as Saville's was, would manifest inferior moral qualities. In

looking at the cut, no phrenologist can fail to be struck with the low position of the ear (indicating a great development of the basilar part of the brain), the largeness of the occipital region, and the moderate depth of the region of the moral sentiments. Mr Bussey, on seeing Mr Beggs' collection after taking the sketch, was struck with the general resemblance of the head to that of Hare, except in the superciliary ridge, which is much smaller in the latter. That Saville was well furnished with Individuality and Eventuality, appears from the the readiness with which he invented the stories about his

ancestors, as well as from what the girl Tate mentioned in reference to his courtship of her, namely, that during their walks "he told her more strange, pleasing, and curious tales than would fill a newspaper." Destructiveness may be very large in a head without being in the least "protuberant;" and the sketch is far from bearing out Mr Small's assertion that Combativeness was "moderate."

Some of the particulars quoted on p. 386, make it probable that Saville's brain was by no means a healthy one.

Understanding that the conclusions of Mr Small have been greedily adopted at Nottingham by many persons ignorant of Phrenology, we have thought the case worthy of notice, although it presents no uncommon features, and is less instructive than if a cast of the head had been taken.

III. NOTICES OF BOOKS.

I. *Zeitschrift für Phrenologie*, Nos. III. and IV. ; Heidelberg : Karl Groos. 1843.

The German Phrenological Journal, Nos. III. and IV. ; Sept. and Dec. 1843. Edited by GUSTAV VON STRUVE and EDWARD HIRSCHFELD, M.D.

We have now received three additional Numbers of this Journal, and are glad to see the work conducted with so much spirit and regularity; for it has been published precisely on its quarter days, although, from the defective communication for books between Heidelberg and Edinburgh, the recent Numbers have not reached us in due season.

Of No. III., a brief account was given in a previous article, (p. 51 of this volume.) We revert to it, however, in order to notice some of the papers more fully than our limits formerly allowed.

The following among other interesting cases of excitement of particular cerebral organs, is related by Dr Hirschfeld, under whose own observation it fell. "Mr J. H. Arnholz," says he, "is a highly talented carriage-builder in Bremen. He had invented a carriage which, containing the moving power within itself, should be capable of being propelled without the aid of horses. The mode of executing the design had engrossed his every thought, and so absorbed all his faculties, that he was frequently alarmed at his own condition, and made vigorous efforts to avoiding thinking on it. He felt uneasiness in the region of the heart; which, however, disappeared when he succeeded in diverting his thoughts. He suffered, during the same period, severe pain in the head. Dr Hirschfeld put

the question, whether the pain extended over the whole head? when he replied, that it did not, and pointed with his fingers to the two sides of the head, at the temples, where the organ of Constructiveness is situated, as the spots in which the pain was almost exclusively felt, and from which it proceeded to the region of the reflecting organs. The excitability was so great, that while he made a slight drawing to illustrate the nature of his machine, he felt the darting pain in the temples; and mentioned this fact without any question having been put to him on the subject." This case occurred in the spring of 1843.

Mr Von Struve has given his readers an able article entitled, "Johannes Müller and Phrenology," in which he remarks, that "when we compare the attacks which Ackermann and his contemporaries made against Dr Gall's doctrine, with the objections which are urged against it by Johannes Müller and the other opponents of our day, the attentive observer must remark, that physiology in general has made a wonderful approach towards Gall's views since the beginning of the present century. Now, it is universally conceded, at least, 1st, 'That the brain is the site (or the organ) of the higher faculties of the mind.' (Müller, *Physiologie*, p. 852.) 2d, 'That nothing can be legitimately urged, *à priori*, against the possibility of Gall's doctrine being true.' The objection is now confined to a denial that Gall's organology has a sufficient basis in experience." This objection proceeds uniformly from men who reject the testimony of all phrenologists, as interested partisans, and who decline themselves to institute a series of observations *in the manner pointed out by phrenologists*, sufficient to enable them to arrive at conviction for themselves. Mr Von Struve remarks, that Müller's Physiology of the mental functions may be divided into two completely separate parts. In the one, he appears as a direct and independent observer; and what he teaches in this character is out and out a confirmation of the phrenological doctrine; in the other, he follows the views of other physiologists, and becomes an opponent of Phrenology; even then, however, forbearingly, and without that intermixture of bitter abuse which is so frequently found in their works. Mr Von Struve substantiates the first assertion by numerous quotations from Müller's work.

The next article, also from the pen of Mr Von Struve, is "On Primitive Christianity, Protestantism, and Roman Catholicism." After pointing out the great differences between Judaism and Christianity, he proceeds to observe, that "both Protestantism and Catholicism must address themselves to very influential classes of faculties, otherwise they could not have

subsisted for century after century side by side. Protestantism excites more the intellectual faculties and Combativeness; Catholicism, more Ideality, Tune, Constructiveness, Colouring, and Destructiveness: the former, Self-Esteem; the latter, Love of Approbation. If it were possible for Protestantism to satisfy the Ideality, Tune, Colouring, Form, and Destructiveness of mankind, as fully as Catholicism does, it would supplant Catholicism. On the other hand, if the latter could excite the reflective faculties, Combativeness, and Self-Esteem, as strongly as Protestantism does, Protestantism would be forced to yield the ground." He remarks that Protestants sooner become lukewarm in their religion than the Catholics; one cause of which is, that the Protestant churches present no objects to interest the class of faculties which is so strongly addressed by the Catholic worship; and that if the Protestants were once to conquer their aversion to ornaments and ceremonies, there would be danger of their falling back into Catholicism, as is at present the case in France, England, and Scotland.* "Protestantism owed its rise to the activity of the intellectual faculties, Combativeness, and Self-Esteem; and it can extend itself only where free scope is given to the powers which called it into existence. These were, unfortunately, too early circumscribed. The reflecting intellect of Protestantism was already chained by Articles of Faith in the times of Luther and Melancthon. Boundaries were erected by Forms of Belief which were insurmountable; for he who surmounts them separates himself, by the very act, from his fellow-believers. The limits which checked reflecting intellect, restrained also Self-Esteem: Protestantism began by overthrowing a belief founded on authority, and immediately set up Protestant authority to guide belief, in place of Catholic authority. The wakening spirit of self-reliance was imprisoned in its very dawn, and Combativeness received a different direction. Instead of turning themselves against every kind of misinterpretation and disfiguration which Christianity had undergone since the death of Christ, the Reformers directed themselves against their fellow-Protestants who sought to introduce new forms of belief. Dissension arose between different sects of Protestants; and their doctrine could not gain that expansion which it might have attained in a free field of action. The Protestants surrendered, bit by bit, their holiest and most important

* The prevalence of Puseyism indicates a tendency, in England, to relapse into Catholicism; but, thanks to our "Free Church," the faculties of Self-Esteem, Combativeness, and Intellect, have too ample a scope for activity in Scotland, in the fair field of Protestant dissension, for Catholicism to have any chance of gaining the ascendancy among us.

principle—the purification of Christianity from the admixture of all human corruptions—while they carried their attacks no farther back than to the Council of Nice. Between the death of Christ, however, and the date of that Council, as many errors had sprung up, which should have been cast off, as arose between that Council and the Reformation. In this manner, Protestantism was cut off, in its early bud, from the source of its life-giving power; and it could neither grow nor extend itself, but continued to drag on a miserable existence, nourished by the juices which it originally contained, instead of eliminating new ones for its support. Its top, here and there, begins to wither; its branches are hard, and its twigs are falling off. Many persons wonder at these appearances; but they have much more reason to be surprised that the stem still stands so straight and firm.” This article is accompanied by lithographic portraits of Luther and Melancthon, the founders of the Reformation; of Gregory VII., the founder of the supremacy of the Pope; and of Alexander VI., whose scandalous character was one of the circumstances which led to the Reformation. We observe, however, that the writer has omitted to give any phrenological description of these heads, or of the characters connected with them, in the article itself, to illustrate which they are presented; and only in the last leaf of the Journal introduces a brief notice of them, from Dr Spurzheim’s work on *Phrenology in connection with the Study of Physiognomy*. Phrenology is a practical science, and in every work on the subject opportunities should be embraced of instructing its readers in the art of observation. The correspondence of these heads with the natural dispositions and talents of the men, is very striking; and these dispositions and talents produced great historical results. The opportunity was, therefore, an excellent one of giving a practical lesson on the science.

Among the miscellaneous notices and remarks with which this Number concludes, is a notice, by Dr Hirschfeld, of Professor Marx’s observations, in a recent work, on Phrenology in England. Dr Marx speaks disparagingly of Phrenology and certain phrenologists, and then proceeds to pass high encomiums on Hanwell Asylum and Dr Conolly. Dr Hirschfeld remarks, that it is to be regretted Dr Marx did not think of asking Dr Conolly what *he* thought of Phrenology, and whether it had been of any service to him in producing the results in the treatment of the insane which Dr M. so much admired. Dr Conolly would have told him that he himself is a phrenologist; that Hanwell first acquired its high reputation under the management of an avowed and zealous phrenologist, Sir William Ellis; that it subsequently passed into the care of a

non-phrenological physician, who speedily resigned his post ; and that, finally, Dr Conolly was appointed superintendent, when it resumed even more than its former excellence under Sir William Ellis. If, says Dr Hirschfeld, Dr Marx had asked Dr Forbes, or Sir James Clark, physician to the Queen, whom he highly commends, their opinions concerning Phrenology, perhaps they could have given him some information regarding its progress, and the estimation in which it is held in England, that might have served to guide his judgment a little nearer to the truth ; but he seems carefully to have avoided all such opportunities of gaining information.

No. IV. contains the portrait of Dr Gall which we presented to our readers last July ; also a letter, dated Ischl, 1st September 1843, from Mr George Combe to the Editor, on the proposed German Phrenological Society, which, as formerly mentioned, has since been formed at Dresden.

The first article of the Number is a translation of Gall's section on the "Physiological Evidence of the Plurality of the Organs of the Mind," from his work *Sur les Fonctions du Cerveau*. The article is a masterly argument, in which Gall cites and refutes all the objections urged, in his day, against the doctrine of the plurality of mental organs ; and when we read these objections, and consider that scarcely any physiologist of reputation in Europe or America *now* countenances them, we cannot avoid seeing the great advance which, since Gall's time, has taken place in the public mind on this subject.

The next article is a description of various individual cerebral organs by Mr Von Struve, accompanied with figures in illustration of them ; an able and highly useful contribution to the means of studying the science.

Article third is a "Miscellaneous Practical Essay," by Caspar Schlatter, teacher in St Gall. The author remarks, that, "as there is a momomania and mono-idiotism, so there is also a mono-intellectuality, *i. e.*, an extraordinary development of a single talent, accompanied by great deficiency of all the other intellectual powers. The celebrated painter of cats, named Mind, in Bern,* was an idiot, in the fullest sense of the word, and was altogether childish in his manners ; yet he had such a great tendency and talent for painting from his youth upwards, that he represented in various pictures, large

* As the author remarks that he has not seen this person cited as an example, in any phrenological work, we may mention that, many years ago, Mr Combe referred to him in his lectures in Edinburgh, as an example of partial talent, and exhibited, in illustration, one of his pictures of cats.

and small, his numerous favourites (cats), of both sexes and of every age, in every possible attitude and action, with the most striking effect, and completely true to nature in their forms, proportions, and colours." "The organs of Form and Colouring were very large in his head. He had, however, such a passionate predilection for painting cats, that he could very seldom be induced to represent any other object; and the more earnestly he was pressed to do so, the more obstinately he adhered to his own predilection.

"In St Gall," continues Mr Schlatter, "there is now (1843) living a young man, the son of poor parents, who were unable to expend much money in his education. He is not altogether idiotic, but very weak in understanding; and his forehead is very defective in its organization. Nevertheless he has a large organ of Tune, and a considerable talent for music. In his youth, he learned, through his own passionate desire and unwearied industry, aided by some benevolent friends, to play most difficult compositions, easily and correctly, on almost all musical instruments; and he now earns his bread in this place as a teacher of music, although he could not have succeeded in any other calling. His behaviour, in every other respect, is so childish, silly, ungainly, shy, and unintellectual, that every one who is not a phrenologist must be astonished at his appearance. To the phrenologist his single talent is easily explicable. He is, however, incapable of original composition; for, to accomplish this, the higher intellectual powers also are necessary.

"I had a scholar, J. H., a boy of fourteen years of age, who, in addition to good intellectual powers and a well developed forehead, had an extraordinary talent for pantomime. He imitated the cries of every variety of animal, in the most perfect and laughable manner; and also the attitudes, gait, gesticulation, expression of countenance, voice, and manner of speaking, of the most different individuals who were known to him; for example, those of the clergyman and schoolmaster of this place, whose tone and manner of preaching and teaching he represented so strikingly, that any one who stood at the back of the door listening, not knowing that he was within, believed that the person imitated was himself in the chamber. The organs of Benevolence and Imitation were very largely developed in his head; and he was also of a very kind and amiable disposition. He subsequently learned, at the request of his parents, who possessed no property, the trade of a blacksmith; but I scarcely believed that he would remain in this occupation. I heard no more of him, and suspect that he has left the country, and joined some company of comedians.

“In another of my scholars, Augustus H., I observed, as soon as he came to me, a considerable development of Secretiveness and Acquisitiveness, and on this account kept a strict eye upon him. I knew, however, of no instance of theft committed by him, and made no inquiry after any such, I, on one occasion, shewed my collection of skulls, arranged in a neighbouring room, to my scholars, and shortly explained the use of them. In the evening, after the close of my school-hours, when all the scholars were gone, I wished to compare some specimens, and found that several small skulls were wanting, and nowhere to be found; and immediately my suspicions fell on this boy. Next day I inquired privately of two of his comrades, if they knew of any thefts committed by him. They mentioned that his parents had already been forced more than once to pay for articles stolen by him from shops. When he and the other scholars came back to me, I mentioned to them in a soft, friendly manner, that these skulls were missing; that nobody had been in the room where the skulls were kept since they had been there; that one of them, from liking, must have taken them; and that, if the individual who took them would candidly acknowledge his fault, I should not punish him in the least: but I added, in solemn earnestness, that although the guilty one should not confess, yet I knew him, and now looked on him. No one, however, pleaded guilty. With friendly admonition I asked each of them individually, if he had taken the skulls? but every one assured me that he knew nothing concerning them. H. cast timid and sly looks around him, betraying inquietude, but without blushing. Immediately I broke out, seized him, tore him from his seat, gave him several heavy blows on his posteriors so that he cried, and thrust him out of the door, with these decided words, “Begone! bring me the skulls, otherwise never enter this school again!” And, behold! after dinner, before the other scholars assembled, he came to me with the skulls, and, deeply ashamed, begged for pardon. I admonished him earnestly alone, and after the other scholars came together, on his conduct. I do not know whether he afterwards committed any other thefts.”

It occurs to us, on reading this narrative, that Mr Schlatter probably might have made a better moral impression on this boy, if, when he saw him troubled by conscious guilt, he had encouraged him more assiduously to confess. The boy's demeanour shewed the existence of an internal struggle between the moral sentiments and the propensities; and it is often difficult for young delinquents to muster courage to act on their higher impulses, when they are conscious of having

done wrong. A little kindly encouragement will often enable them to do so; and only after all the higher motives have been tried in vain, does it become expedient to move them to virtuous conduct, through the medium of their selfish faculties, by blows.

Mr Schlatter mentions the case of another scholar, who, by falling into the ditch of the town, fractured his skull, and lost a portion of brain on the left side, as big as a pigeon's egg: nevertheless, there was not the least trace of diminution in the power of manifesting the faculties whose organs lay in the injured region, viz. Constructiveness, Tune, Number, and Time. The corresponding organs on the right side remained uninjured, and seemed to manifest the faculties successfully.

Our limits prevent us from noticing several other interesting cases reported by Mr Schlatter, as well as from entering on the second and third parts of his essay. Part second is on the differences between the right and left side of the body in man and animals; and part third, on the possibility of a physiognomy possessing the character of a branch of natural science. We agree entirely with him, not only that Gall's discovery of the functions of the brain has rendered this possible, but that Gall himself advanced a considerable way in executing the idea. We observe that the German editor mentions, in a note, that "the modest author (Mr Schlatter) here expresses a wish which he himself has accomplished. The editor is in possession of a manuscript work by him, illustrated by many hundred drawings and copperplates, on Physiognomy founded on Phrenology, the result of the experience of a lifetime." The editor requests that any printers or publishers who may be willing to disburse the expense of printing and publishing it, will apply to him. If such a work were well executed, and embraced the application of physiognomy to the fine arts, it could scarcely fail of success.

The next article in the Journal is an "Examination of the Development of the Brain of Mr F. W. Hackländer, by Dr Castle of New York," in which Dr Castle's usual analytic power and profound discrimination are shewn. After this follows a short article by the editor, calling on Dr Gall's correspondents to preserve, and, if they are inclined, to send him for publication, the letters of that eminent man; and he gives a *fac-simile* of the letter dated 26th February 1807, written by Dr Gall to the Finance Minister of Saxony, Mr Blöde, of which a translation has already appeared in our pages, (vol. xvi., p. 394).

The "Short Notices of Books," by Dr Scheve, are at once

pleasing and interesting. He cites the objections urged in 1805 by Ackermann against Gall, (many of which are nearly identical with those brought forward by Dr Gordon in No. xlix. of the *Edinburgh Review*); and shews how extensively Gall has already triumphed even in Germany. Ackermann denied, and, as was then believed, completely refuted, Gall's anatomy of the brain; yet that very anatomy is now taught in almost every medical school in Germany, and forms the groundwork of the best recent publications on the subject in that country! Dr Scheve next notices Dr Frederick Arnold's treatise on Human Physiology, quotes from his pages acknowledgements of the truth of the great and leading principles of Phrenology, and replies to the objections which he urges against particular doctrines. Dr Arnold, like many other able men, appears to recognise the truth of Phrenology just so far as he knows it accurately; and, where his knowledge fails, he substitutes fancies of his own, and refutes *them*, believing them to be Phrenology.

Dr Scheve next notices a work entitled *Psychologie, oder die Wissenschaft vom subjectiven Geist, von K. Rosenkranz, ordentlichem Professor an der Universität zu Königsberg*. 1843. "Rosenkranz," says he, "knows very little of Phrenology; but he is just so much the more disparaging towards it, and confident in himself, although his own views are, in a corresponding degree, weak, offensive, and untenable."

The Number concludes by an interesting selection of miscellaneous notices. A copious index is appended, completing Vol. I. of the German Phrenological Journal, extending to 484 octavo pages. Long may the editors persevere in their high and useful vocation!

Our limits do not permit us to notice at present the 5th and 6th Numbers, which we have also received.

II. *The Fallacies of our own Time.* By OLIVER BYRNE, late Professor of Mathematics, &c., and Professor JOHN BYRNE, Norfolk, Virginia, United States, &c. *First Part: FALLACY OF PHRENOLOGY.* London: Sherwood & Co. 8vo, pp. 79.

Such is the title under which the most impudent and "fallacious" pamphlet of "our own time" is ushered into the world. The "advertisement" prefixed to it informs us, that "This work, the object of which is to discuss the principal fallacies commingled with our sciences, laws, religion, educa-

tion, and conventional usages, will be published in twelve parts; each part will be complete in itself." The Fallacy of Phrenology forms part first, and the subject of the second part will be "The Fallacies of restricted Trade and Monopoly." Though "London" is on its title-page, the pamphlet is evidently from an American press.

Judging from the profound ignorance of the simplest principles of physiology and mental philosophy, as well as of phrenology, which pervades this work—from the disregard of truth, consistency, and reason, which are displayed in it—and from the tone of self-conceit and arrogance which runs through every page—we cannot conceive a greater mischief happening to Free Trade, than that Messrs Byrne should become its advocates. *Punch* lately remarked that the calamities of unhappy Ireland were about to be consummated by the author of *The Great Metropolis* writing a book about it! In the lowest depths there is a lower still. Let the Messrs Byrne write a book in defence of Ireland, and her cause will be ruined for ever.

As a specimen of their *facts* we select the following:—"The theory of Phiz. has long since ceased to be advocated; but the protuberances on the cranium seem to be on the meridian in America; *though, in Europe, Phrenology has descended far below the horizon, and can be seen by reflection only*"! (P. 5.) The French, German, and British works on Phrenology, noticed in our last and present numbers, will serve as an answer to this assertion.

As an example of their ignorance of physiology and their powers of reasoning, we take at random the following remarks:—

"Now, the very idea of making the mind of man depend* merely on the increase or diminution of any part of his body, is, indeed, self-contradictory; it brings man below the brute; for it approaches to the vegetative. Again, to conceive such a tender and delicate substance as the brain forcing out such a hard and durable material as the skull *at a mature age*, in particular places, is almost argument enough to upset this *anagram of a science* in its first commencement." Nothing can exceed the illogical inconsequence of these propositions; while the authors, at the same time, appear not to know that it is a recognised law of physiology, that the soft parts give form to the hard; or that the "particular places" of the skull receive their form from the brain, not, in the general case, as here stated, "at a mature age," but in youth, when the brain and skull are both increasing. But even in mature age the

* Here they omit, what phrenologists constantly include, the words, "for the power of manifesting itself in this life."

soft parts give form to the hard. Did they never see a hydrocephalic head, in which the "tender and delicate brain," when distended by water, had enlarged the "hard and durable material of the skull?" Did they never hear of the ribs falling in, when the lungs decayed, and were no longer able to support them, although the lungs are as tender and delicate as the brain?

There is no proof, say these critics, that "the brain is the organ of the mind; it is not self-evident; it only amounts to a conjecture, and one of the lowest degree; because it rests on the argument that the premises assumed cannot be disproved!" This needs no comment.

Again they say, "It is a fundamental doctrine in Phrenology, that 'every faculty is originally good;' and that 'the legitimate exercise of every faculty is virtuous.' If this be one of the axioms of Phrenology, instead of being self-evident, it is not true, nor has it even plausibility to support it!" (P. 41.) What, then, becomes of the wisdom and goodness of the Creator?

On page 57 they inform us that "There is a curious fact, not irrelevant to the present subject, *as it illustrates the nature of the brain*; at least, as far as regards the lower animals. Naturalists have discovered that large flies sometimes enter the brain of the elk (or generate there), and eat the brain almost away before the animal dies." They do not mention *how* this "illustrates the nature of the brain;" but we may infer, that, as they deny it to be "the organ of the mind," and do not assign to it any other function, they mean us to understand that it is a fungus created for the purpose of feeding flies—"at least, as far as regards the lower animals." We suspect, moreover, that Thomas Moore is the "naturalist" on whose authority they rely for the fact itself; at least he is the only one quoted by them. He says:—

"In the woods of the North, there are insects that prey
On the brain of the elk, till his very last sigh!
Oh, Genius, thy patrons, more cruel than they,
First feed on thy brains, and then leave thee to die."

As Messrs Byrne are discussing the talents of men and animals, we recommend to their notice, as an important contribution to their next edition, another fact, resting on an authority in natural science, which they seem to have deeply studied, although we do not observe that they have anywhere honestly quoted it.

"The trout and salmon
They played backgammon,
All in the river's tide so fair."
Groves of Blarney.

Now, if the "trout and salmon," with their notoriously small brains and sloping foreheads, be capable, as mentioned in that very accurate record of natural phenomena, *The Groves of Blarney*, of playing at the complicated game of backgammon, why should the phrenologists try to "gammon" the world, with their nonsensical doctrine, that size in the organs, *cæteris paribus*, is a measure of power in the manifestation of the mental faculties? This feat of the "trout and salmon" refutes it completely—"at least, as far as regards the lower animals."

With one piece of friendly advice, we leave Messrs Byrne in full possession of the field. Let them, in future, write with less disrespect to the public than is implied in their candid enough announcement, that the present pamphlet was "composed from facts that chanced to linger in the recollection, as a kind of evening recreation, succeeding days employed in 'playing [plying?] the irksome task of public instruction.'" No reader of sense will submit to be insulted by the substitution of "*facts*" which chance to linger in the recollection of men jaded by irksome professional employment, for extensive and accurate knowledge, gained by patient study, and communicated by a writer who brings to his task a fresh and vigorous understanding.

III. The Medical Journals.

The Medico-Chirurgical Review.—In No. LXXIX. (Jan. 1844), p. 83, the following instances of change of character, in consequence of injuries of the head, are given:—"The remarks of Pinel and others have shewn that a sanguinary instinct may be accidentally developed in the most virtuous man, and may carry him often irresistibly, without any reasonable motives, to the most terrible excesses. Other instincts may be similarly developed. It has been stated of the notorious duellist, 'fighting Fitzgerald,' that, previous to a wound in the head, he was a mild and amiable man. Be that as it may, injuries of the head produce curious modifications of character, just as concussions of the body from gunpowder have been observed in some instances to have brought on obesity and a general stoutness. We were acquainted with two officers who attributed their extraordinary size after the event to the circumstance of being blown up, the one in Madras Roads, and the other in storming a fort. One person, who received a severe concussion of the brain by a fall from his horse, became soon

after capricious and cold to old friends, with whom he had been formerly most cordial. Another gentleman, who, up to his 40th year, had been noted for steadiness, respectability, and sobriety in his profession (the law), was severely wounded and concussed by a fall from his horse—and became an incurable drunkard. The recollection of such things ought to make us charitable towards our neighbours' failings. We know not what may be at the root of them!"—In No. LXXX., p. 328, there is quoted from Mr Curling's recent work on the Diseases of the Testis, a case where injury of the back of a soldier's head was followed by loss of sexual desire, and wasting of the reproductive organs. Mr Curling quotes similar cases from Larrey, Hennen, and Lallemand, and thinks "they go far to prove the essential dependence of the functions of the testes upon the cerebral organ."*

To the last three Numbers of the *British and Foreign Medical Review* we can do little more than refer. In No. XXXIII. (Jan. 1844) the reader will find some instructive remarks on the brain and mental functions in old age, p. 103 ; on derangement of the functions of the brain, &c., without any apparent disease of structure, p. 126-7 ; quantity and pressure of blood in the brain, p. 127 ; judicious and successful improvements lately made in the treatment of the patients in Haslar Naval Lunatic Asylum, p. 285. In No. XXXIV., on the importance of the study of the anatomy and physiology of the nervous system (on which subject the writer says,—“Mental philosophy or metaphysics must henceforth be cultivated as a portion of the physiology of the nervous system,” p. 380) ; the sense of the amount of contraction of the muscles, p. 413 ; spectral illusions

* See a notice of Dr Budge's Experiments on the Cerebellum, in the *British and Foreign Medical Review*, April 1844, p. 402 ; also an article on the Structure of the Cerebellum, by C. Handfield Jones, in the *Medical Gazette*, 29th March 1844, p. 866 ; and a notice of a work entitled “The Principal Offices of the Brain and other Centres, by Joseph Swan,” in the same publication, 12th April, p. 52. “The cerebellum,” says the writer of the notice referred to, “Mr Swan does not agree in considering, with the French anatomists, as the part which regulates or co-ordinates motion. It is much rather an appendage of the brain, he says, than of the medulla oblongata and spinal cord, the acknowledged seats of the motory power. It does not correspond with the number and size of the sensitive and motive nerves ; it is not required for the intellect, the special senses, common sensation, or volition ; nor is it concerned in digestion or assimilation ; and is not proportioned to the heart, lungs, chest, or any organ, nor yet to the reproductive faculty generally, although it must be confessed that this faculty is very active in the porpoise, where the cerebellum is very large (p. 11). We rather think that Gall was right in his estimate of the function of this part after all.”

("Neither increased nor diminished sensibility of the optic nerve," says the reviewer, "can be considered as in any way connected with spectral illusions; their site is undoubtedly cerebral," p. 415); hypochondria (which, in the reviewer's opinion, manifestly "depends on a local neurosis of the cerebrum," and the morbid anxiety characterising which, is, "in fact, but a modification of that morbid state usually termed mental depression," p. 419); psychical spasms, "the 'imitated movements' of English writers, and on which," says the reviewer, "as well as on the vertiginous affections, animal magnetism may be expected to throw some light. The subject," he adds, "is one of the most important in cerebral physiology, and has a decided bearing on education, morals, and social economy. Epidemic fanaticism, tarantism, the leaping ague of Scotland, and other well-known examples of this kind of disease are mentioned [by Professor Romberg, whose *Manual of Nervous Diseases* is the book reviewed]. This imitative propensity appears sometimes as a chronic affection. We have been consulted concerning a girl of five years, who, when spoken to, gave no answer, but repeated what was said to her like an echo. Professor Romberg, who terms this form 'echo,' states that he has observed it in many individuals, and in variously diseased states of the brain." P. 422. The following scraps are selected from No. XXXV :—"We recollect hearing of a physician of celebrity, who would not continue to attend any patient who had any weight upon his mind; probably from feeling that his visits were useless." P. 59.—"A prize having been offered by the Royal Society of Copenhagen, for the best essay upon 'the advantages and results which have accrued to physiological science from the recent microscopical investigation of the nervous system,' Dr Hannover became a candidate for the honour," and a work reviewed at p. 140 is the result of his labours. He states that the brain and spinal cord consists of two principal elements—cells and fibres; the cells being vesicles, consisting of a membrane enveloping fluid contents, with one or more nuclei, and the enveloping membrane a very fine-grained substance. "The cells of the brain are to be found wherever the cerebral substance is not entirely white; but in the purely white substance there is not a single cell." "Dr Hannover confirms, by the microscope, the observations of Remak and Baillarger, that the superficial grey matter of the brain is composed of several layers. . . . In the brain of large mammals, and of the human species, the grey substance is seen to consist of six layers, which Dr Hannover has figured. The fibres run horizontally on the convolutions in the external or first layer, which is exceedingly thin." The same

article contains (p. 145-6) some striking observations on the newly-evolved and pregnant fact, that there is a gradation in the development of the nervous system of animals, from the lowest radiata to the mammalia, and from the lowest mammal to man. "The striking analogies between portions of the osseous, vascular, muscular, and nervous systems in each and every class, have been pointed to as proving a unity of plan throughout the whole. Now, if this leading doctrine of transcendental physiology be true (and we think it is), the nervous system of animals must be studied as one whole, and the structure and function of distinct classes and tribes be elucidated by the knowledge derived from this study." Some bold suggestions are thrown out by the reviewer; and he adds:—"The pathology of insanity, and other results of disturbed cerebral action, of animal magnetism, and of other changes not rigidly to be termed morbid, may possibly be both elucidated and explained to an un hoped-for extent, by classing their phenomena with the reflex phenomena of the spinal cord. Nor would the good results end there; for, as the brain is the organ of mind, mental philosophy would necessarily participate in the general progress. The instinctive actions of the lowest animals are reflex in character; are those of mammals less so? If not, then this is the route by which we should seek knowledge respecting the physiology of the passions."—This Number contains a translation of Dr Marx's "Report on the Influence of Civilization in lessening the number and severity of Diseases."

The Lancet of 29th June 1844 contains a reply, by Dr A. L. Wigan, to the writers who criticised, in that journal, his theory of the "Duality of the Mind." In a postscript, he says:—"When I had nearly finished my task, there was pointed out to me a paper by Mr Hewett Watson, in the 9th volume of the *Phrenological Journal*, entitled, 'What is the Use of the Double Brain?' The idea put forth, suggestively, by that writer is absolutely the same as that which forms the groundwork of my own speculations, though, as will be seen, it forms but a very small part of what I hope and expect to prove to the satisfaction of every reader, phrenologist or not. I do not think it would be possible to offer a more conclusive proof how entirely the theory was unknown and unsuspected, than the fact that such a suggestion should have passed unnoticed when promulgated by a man like Mr Hewett Watson, in a work so extensively known as the *Phrenological Journal*. Should that able and accomplished writer again take up the subject, I feel quite satisfied that he will feel himself justified in stating his opinions dogmatically." Dr Wigan's promised

volume has not yet appeared.—On the following page of the same Number will be found a notice of the religious mania which reigned epidemically in Sweden during the years 1841-42; and a case of loss of speech, the result of a serious lesion of the anterior lobe of the brain, by Dr Turchetti.—In the *Lancet* of 3d August, Dr Forbes, editor of the *Medico-Chirurgical Review*, publishes Notes of two mesmeric experiments in London with the “clairvoyant Alexis,” of whom our readers must have seen accounts in the newspapers. From the first exhibition he drew the following conclusions:—“1. That the whole affair bore the complexion of trickery, or, at all events, that it wanted entirely the precision requisite in scientific inquiries. 2. That the total amount of positive failures and positive blunders greatly exceeded that of performances having even a colour or slight degree of success. 3. That the failures occurred in cases where the circumstances were such as to exclude collusion and the exercise of ordinary vision. 4. That all the instances of success occurred where circumstances allowed of collusion or ordinary vision. 5. That in all the cases of success such collusion or vision was either proved or rendered extremely probable. 6. That there was not one single unequivocal example of what is called *clairvoyance*. 7. That, consequently, this exhibition not only affords not one tittle of evidence in favour of the existence of this faculty in the man Alexis, but presents extremely strong grounds for believing that the pretended power in him is feigned, and that he is, consequently, an impostor.” At the second exhibition, as at the first, “Alexis failed to shew unequivocally the power which has been called *clairvoyance*.” “I think it right to state,” adds Dr F. “that, even now, I only avow myself a sceptical doubter—not an utter disbeliever—as to Mesmerism. I am still open to conviction, when such evidence of its truth is afforded me as is deemed necessary in any other scientific inquiries. The things I have myself seen most assuredly increase very materially the doubts I before entertained; still I do not regard them as sufficient to prove the utter falseness of Mesmerism; they prove nothing more than their utter insufficiency to prove its truth. Even the positive proof of trickery and collusion on the part of its professors, however, would afford no sound reason for declaring it to be false. Like medicine, or any other branch of natural science, it may be true, although it be professed and practised by charlatans, cheats, and rogues. Give me the same kind of proofs of *clairvoyance* that I have of other scientific truths, and I will believe it.” Dr Forbes has detailed the experiments very minutely, rightly believing that “it is only in this manner that a just judgment can be

formed by any reader of the positive value of such experiments. Almost all the published records of mesmeric wonders, and all those I ever heard narrated, are utterly valueless, from being defective in exact and minute details." Among other arrangements for accurately and circumstantially recording the second exhibition, was the taking of notes, in short-hand, by one of the gentlemen present. It ought to be added, that M. Marcillet, who brought over "Alexis" from France, has replied, in a bitter spirit, to Dr Forbes, in the *Medical Times* of 27th July; which Number contains also a Report, by Dr W. B. Costello, of "Recent Experiments with Alexis," and an editorial article on the "Probabilities and Improbabilities of Mesmerism." In the same journal, of 6th July and 31st August, there are reports of other experiments with Alexis, one by Mr T. Piers Healy, and the other by "a gentleman of very high respectability." See also the July Number of the *Zoist*. The *Medical Gazette* laughs at the mesmeric exhibitors; and, in fine, both M. Marcillet and Alexis have returned to the Continent.

The *Medical Times*, of 6th July, contains a valuable paper, by "An Enquirer," on the analogies between the natural somnambulent, and the mesmeric states.

In the *Medical Gazette* of 9th, 23d, and 30th August, and 6th September, 1844, is published a translation, by Dr J. C. H. Freund, of a German work, entitled, "On the present state of Cranioscopy, upon a Scientific Foundation; a Lecture delivered at Leipzig, on the 3d of February 1844, by Dr C. G. Carus, Medical Privy Councillor, and Physician in Ordinary to his Majesty the King of Saxony, &c. &c." For presenting this Lecture to the English public, Dr Willis the editor, and Dr Freund the translator, deserve the thanks of the curious in metaphysical speculations. The translation of Dr Carus's writings on cranioscopy into English is extremely difficult, owing to the transcendental quality of both the thoughts and the style in the original: and we congratulate Dr Freund on the success with which he has performed his undertaking. In a former volume (xv. 154) we expressed our opinion of Dr Carus and his "New Cranioscopy;" and we find no reason now for altering our judgment. A more thoroughly unscientific production we have rarely perused. The opinions of Dr Carus are based on assumptions which are contradicted by demonstrable facts; his deductions are illogical, and his conclusions unsound. Metaphysically and physiologically, his work is equally destitute of solidity; and if it attract admirers, either here or in Germany, they must belong to the class of minds

which praised Dr Stone, and delighted in the refutation of Phrenology by Dr Gordon in the *Edinburgh Review*—namely, persons who have committed their own reputations by opinions hostile to Dr Gall's Phrenology, and who, to save themselves from the disgrace of being in the wrong, would praise any opponent of that great discoverer, however dishonest and weak. In so far as the phenomena which Dr Carus describes are correctly observed, they are more logically and scientifically explained on the principles of Dr Gall, and seem in many instances to be merely a repetition of facts long familiar to phrenologists. The present translation embodies a brief but fair summary of Dr Carus's German works on the same subject; and we recommend to every one who desires to know what his views are, to peruse it. In this country no refutation of his doctrines is needed. We leave to them the field uncontested, and wish their promulgator joy of every convert he can make. The reputation of Dr Gall is not destined to vanish before the genius or acquirements of Carus.

IV. Our Library Table.

Report of the Metropolitan Commissioners in Lunacy, to the Lord Chancellor. London, 1844. 8vo, pp. 291.—This instructive and well-drawn Report sets forth, in a clear and comprehensive manner, the present state of the lunatic asylums of England and Wales, both public and private. The following are the heads under which the matters reported on are arranged:—The different classes of lunatic asylums, their construction, condition, management, and visitation—County asylums—Naval and military hospitals—Public hospitals, supported wholly or partly by voluntary contributions—Licensed houses—Abuses and defects—Condition of paupers on admission—Forms of disease—Medical treatment—Diet—Classification of lunatics—Occupation, amusements, and exercise—Restraint—Religious services—On the admission and liberation of patients—Statistics of insanity—Criminal lunatics—Wales—Suggestions for the amendment of the law. It appears that, on the whole, the public asylums are well conducted; but in some of them the defective nature of the accommodation renders proper treatment of the patients impossible—many are over-crowded—and in the Haverfordwest Asylum, the commissioners found the patients in a most wretched and forlorn state. In some of the private asylums (such as that at Plympton in Devonshire) matters are, if possible, in a still

more deplorable condition. In Wales, the treatment of the insane is disgraceful to a civilized country. On the subject of the total abolition of mechanical restraint, the Report communicates much valuable information, and the arguments on both sides of that much-debated question are fairly stated. The commissioners give no decided opinion of their own ; but they obviously lean to the belief that mechanical coercion may be usefully employed in extreme cases, but ought to be a rare exception to the general rule. This Report, it will be remembered, was brought under the notice of the House of Commons in July last, by Lord Ashley, the chairman of the commissioners ; but his motion, which was for an address to her Majesty to take the Report into consideration, was withdrawn, in consequence of an assurance on the part of the Government that they would immediately give their attention to the subject, with a view to devise a remedy for the evils which have been exposed.

Essays on Partial Derangement of the Mind in supposed connexion with Religion. By the late JOHN CHEYNE, M.D., F.R.S.E., M.R.I.A., Physician-General to His Majesty's Forces in Ireland. Dublin, 1843. Post 8vo, pp. 272.—A work on such a subject, from the pen of a man at once so devout and so eminently skilled in medical science as Dr Cheyne, cannot fail to be perused with interest by the intelligent part of the public. It is calculated to dispel many hurtful delusions from the minds of devotees, by shewing them how much their feelings depend upon the state of the bodily organs, instead of being continually modified by supernatural influences. We had hoped to be able to review this valuable though hastily written work, before the present time ; but even now we must be content with giving this brief notice of it, trusting that our space will admit some extracts from it in a future Number. The positions maintained by Dr Cheyne are thus summed up in his preface :—“ I. That mental derangements are invariably connected with bodily disorder. II. That such derangements of the understanding as are attended with insane speculations on the subject of religion, are generally, in the first instance, perversions of only one power of the mind. III. That clergymen, to whom these essays are particularly addressed, have little to hope for in placing divine truth before a melancholic or hypochondriacal patient, until the bodily disease with which the mental delusion is connected is cured or relieved. IV. That many of the doubts and fears of truly religious persons of sane mind depend either upon ignorance of the constitution and operations of the mind, or upon disease of the body.” Dr Cheyne says he

has never seen a case of disordered mind, even when attended with the most subtle malignity, which could not be more easily explained upon natural principles, than on the assumption of demonism. A modest and instructive autobiographical sketch is prefixed to the volume.

Cyclopædia of English Literature. Edited by ROBERT CHAMBERS. 2 thick vols., royal 8vo. Edinburgh, 1844.—This laboriously compiled work supplies, at a marvellously small cost, a varied and extensive selection of specimens of the best English writers, together with biographical sketches and critical remarks. We are glad to observe that a preference is boldly given to Phrenology over preceding systems of mental philosophy. "The Scottish metaphysical school," says Mr Chambers, "of which Stewart, Brown, and Alison may be said to have been the last masters, will ever hold a high place in public estimation for the qualities which have been attributed to it; but it must be owned to have failed in producing any permanent impression on mankind; nor have we been brought by all its labours nearer to a just knowledge of mind, as the subject of a science. The cause of this assuredly is, that none of these writers have investigated mind as a portion of nature, or in connection with organisation. Since the Scottish schools began to pass out of immediate notice, this more philosophical mode of inquiry has been pursued by Dr Gall and his followers, with results which, though they have excited much prejudice, are, nevertheless, received by a considerable portion of the public. The leading doctrines of Gall are, that the brain is the organ of the mind; that various portions of the encephalon are the organs of various faculties of the mind, and that volume or size of the whole brain, and its various parts, is, other circumstances being equal, the measure of the powers of the mind and its various faculties in individuals. This system is founded upon observation; that is to say, it was found that large brains, unless when of inferior quality, or in an abnormal condition, were accompanied by superior intellect and force of character; also, that in a vast number of instances which were accurately noticed, a large development of a special part of the brain was accompanied by an unusual demonstration of a certain mental character, and never by the opposite. From these demonstrations the fundamental character of the various faculties was at length eliminated. Thus it happens that Phrenology, as this system has been called, while looked on by many as a dream, is the only hypothesis of mind in which scientific processes of investigation have been followed, or for which a basis can be shewn in nature." A long

extract from Mr Combe's *System of Phrenology*, illustrative of the distinction between power and activity of mind, is given.

Société Phrénologique de Paris : Séance Annuelle de 1841-2 Paris, Baillière. 8vo, pp. 100.

Essai sur la Composition Musicale. Biographie et Analyse Phrénologique de Cherubini. Par CH. PLACE. Paris, 1842. 8vo, pp. 38.

These, and several other publications enumerated in our list of books received, we are unable to notice at present.

New and cheap editions of Spurzheim's *Outlines of Phrenology* and *Sketch of the Natural Laws of Man*, and of Warne's *Harmony between the Scriptures and Phrenology*, have just issued from the Glasgow press. An eighth edition of Mr Combe's *Outlines of Phrenology* is newly published in Edinburgh.

IV. INTELLIGENCE, &c.

Majorca.—The first symptom that has come to our knowledge, of any attention being paid to Phrenology in Spain, is the establishment, last spring, of a Phrenological Society at Palma, in Majorca. The Edinburgh Society has lately received a pamphlet, containing the rules, and a discourse delivered by the President, Don Jose O-Ryan, at a meeting held on 28th March. The following is a translation of an official letter which accompanied the pamphlet:—

“THE PHRENOLOGICAL SOCIETY OF MAJORCA.—Considering the intelligence that characterises the age in which we live, it would be highly anomalous if, while all other sciences are advancing so rapidly to perfection, the science of Phrenology should remain in a stationary position; more especially when we consider that its doctrines—based, as they are, upon fixed, positive, and indestructible facts—possess so direct a tendency to the amelioration, well-being, and prosperity of mankind.

“Convinced of this position, enlightened authorities in many parts of the world have given a strong impulse to the advancement of this science, the rapid progress of which we now have the happiness of seeing established in Spain; and this we principally owe to the talents, zeal, and assiduous application of a Spanish subject, the Senor Don Mariano Cubi y Soler. To this gentleman our society owes its institution—an event which took place on the 24th of March ult.; and its rules I herewith enclose.

“It now remains with us to make every effort that may contribute to the advancement and propagation of Phrenology; to labour unceasingly in order to elevate it to that status which is due to its great utility and its social tendencies.

“Our society, animated by the desire of solid instruction, is perfectly assured that it will meet with the fullest sympathy of the members of yours; and we trust that both will unite in an interchange of scientific communications; thus making both sides fully aware of whatever progress and discoveries may be made in this science, and also such reforms

and improvements as may be established in the method of teaching it. May God preserve you many years.

“ J. M. O-RYAN, President.

“ JAIME RULLAN, Corresponding Secretary.

“ PALMA DE MALLORCA, May 1. 1844.”

It appears from the President's address, that the objects of the society are the study of Phrenology, and the delivery of lectures on that subject, as well as on anatomy, agriculture, botany, and natural history. These lectures are to be delivered gratis by members.

Norway.—During a meeting of the Scandinavian naturalists at Christiania, which took place about three months ago, Professor Retzius of Stockholm read a paper on the form of the head and skull among different nations. Whether it was phrenological in its character, we have not learned. Last year, Dr Kombst of Edinburgh delivered before a club at Christiania a private and gratuitous lecture on Phrenology. On that occasion the subject appeared to excite great interest among the audience, which was composed of Germans and Norwegians.

We translate the following remarks from *La Revue Independante*, 25th December 1843, p. 508-9; article, “ Un Hivernage Scientifique en Laponie,” by Ch. Martius :—“ Inanimate nature has been the principal, but not the sole, object of study of the Northern Commission. Finmark is the common rendezvous of three distinct races; the Norwegians, the Finlanders, and the Laplanders. These races differ in intelligence, language, physiognomy, shape, manners, and costume. In former times, attention to these distinctive characters would have been enough; but since all the sciences tend more and more towards exactness, picturesque descriptions are no longer sufficient. The head being the seat of the senses and of intelligence, its form is of great importance as a character of the races of man, and travellers usually bring home some skulls of the tribes they have visited. Not to mention the physical difficulties and moral inconveniences which impede the making of such collections, this mode of going to work was altogether out of the question in Finmark. No one could have recognised in a cemetery the heads of the three races that are found promiscuously there. Besides, the utility of these collections of skulls is less real than is generally supposed. Two or three skulls are carried off and regarded as the type of the nation, while those skulls may, in fact, be completely exceptional. Now, what would be said of a traveller who should present the vast skull of Cuvier, or the small heads of certain idiots, as the type of the French nation?

“ The type of a nation is a head which presents the average form and dimensions, equally removed from the extremes of great and small size; but how is this average skull to be recognised? Nothing will indicate it to you; for the very thing you are ignorant of is precisely those average dimensions which you wish to know. If the diameters of the head could be measured in living men, all difficulty would at once be removed. The cephalometer of Dr Anthelme enables us to accomplish this. It is an instrument composed of two copper circles, one fixed, which surrounds the head; the other, capable of moving from before backwards. This instrument, which is founded on the principle of the polar co-ordinates of geometers, gives the distance of the centre of the skull at every point of the circumference. This centre is at the middle of the straight line drawn between the two openings of the ear. After having measured the skull of an individual with this cephalometer, you can exactly reproduce its form and size with plaster or clay. But

so much trouble need not be taken : it is enough to measure the distance of twenty points of the circumference of the skull from its centre, upon a curve extending from the root of the nose to the middle of the nape of the neck. You will thus have a section of the skull, dividing the head into two symmetrical halves, the one right and the other left. This antero-posterior section will perfectly characterise the form of the whole. You will complete, if you choose, this mesial measurement, by lateral measurements corresponding to transverse sections, extending from one ear to the other, and which will divide the head into two unsymmetrical parts, the one posterior and the other anterior. In this manner M. Bravais and I have operated on 140 individuals, who willingly submitted to the operation. After we had prevailed on one, the others crowded upon us, attracted by a trifling remuneration.

"If you have thus measured a great number of heads belonging to the same nation, you will be able to take the *average* length of each of the radii from the centre to the surface of the skull. Then you will construct with all these radii a head which will, in fact, be the type of the race, seeing that it will represent the *average* cranial dimensions by which the race is characterised. It is possible, nay probable, that no particular individual possesses the average skull of his race and nation. This average skull is ideal ; but it does not, on that account, the less truly represent the cerebral type of the nation or race. These numerical results may hereafter replace the study of isolated skulls, whose forms and dimensions are necessarily individual, and do not allow us to draw from them general conclusions, as to the form of the head in the different races of man."

The Phrenological Association.—We understand that at the annual general meeting of this association, held at the Marylebone Literary and Scientific Institution, 17 Edwards Street, Portman Square, London, on 24th July last, at 4 P.M., the Fourth Law was altered to the effect that "The meetings of the Association shall be held *once in three years* at least, in London or elsewhere, as the Committee shall direct."

Lectures on Phrenology.—Short courses were delivered by Mr E. T. Hicks at *Leicester*, in June and July, and by Mr Boyd at *Kilmarnock*, in August. Two lectures "On Education, phrenologically considered," were given by Mr Rumball at *Wolverhampton*, on 4th and 9th July. Mr S. T. Hall has recently delivered courses of lectures on Phreno-Mesmerism at *Dumfries*, *Kilmarnock*, and *Glasgow*. From a notice in the *Glasgow Argus* of 5th September, of his first lecture at the Mechanics' Institution there, we extract the following particulars :—"The first person operated upon was a young man by whom Mr Hall is accompanied, and whose arms were thrown into the rigid state without the mesmeric sleep being previously induced. The rigidity was produced with more than ordinary ease, the operator raising the arms by merely placing his finger upon the shoulder, when they became so rigid as to resist all attempts to bend them. A new feature in this class of experiments was, for the first time, exhibited before us. By the mere will of the operator, who suddenly contracted his own arm, the arm of the patient was also contracted with such force that two strong men were unable to keep it straight. This patient having been put to sleep, and several experiments shewn, a little boy was also brought upon the platform and thrown into the sleep. Mr Hall stated, in reference to this boy, that he saw even more distinctly when in the mesmeric state than out of it. This, however, he did not represent as a case of clairvoyance, though a believer in the phenomena, but simply as a proof of very exalted vision through

the ordinary organs. Some beautiful exhibitions were now made of the effects of music upon the patients. A band of instrumental music, being in the hall, began to play, in succession, pathetic and heroic airs, when the attention of both patients was powerfully arrested—they seemed to listen with the most intense delight, accompanying the modulations in the harmony with corresponding motions of the hands and body, the attitudes being often singularly fine and appropriate, and expressive of mirth and glee, the most melting tenderness, or bold and manly heroism, in accordance with the character of the music. For example, the air ‘Scots wha hae’ had the effect of producing a noble and commanding attitude, attended by a motion of the arms, the grace and dignity of which could scarcely be surpassed. By acting upon the organs of Tune and Imitation, Mr Hall set both patients to imitate, in their respective ways, musical instruments. The little boy took to the violin, and the elder lad to the flute; and it was exceedingly singular to observe that when the person in the band stopped playing the flute, his mesmeric imitator on that instrument stopped also, and resumed the moment he recommenced. The same singularity occurred with the boy: when the violin in the band stopped, his imitation of it stopped also, though in both instances the other instruments continued to play. By touching the organ of Self-Esteem in the boy, the latter became no longer contented with his small fiddle, but took to the violoncello, which he imitated with his arms so accurately as to call down the loud applause of the audience. Dancing tunes were then played by the band, and the two patients began to trip it upon the platform in capital style. The effects upon them of discords in the music were very singular. These were several times intentionally produced, and appeared to give the most intense pain, except in instances where the boy’s organ of Comicality was excited, when he seemed intensely to enjoy the incongruity produced by the jarring sounds. A variety of curious experiments of this kind having been brought forward, these patients were dismissed, and a young man belonging to our own city, who had previously been mesmerised, was taken upon the platform, and thrown into the sleep. Mr Hall endeavoured, while he was awake to produce rigidity in the arm, by putting into his hands a stick, but did not succeed, though with one of the preceding patients it was done with the most perfect ease. While in the sleep, however, rigidity was produced with great facility. The effect of music on the patient was also tried, accompanied with results similar to those already mentioned.”

Dr Conolly’s Lectures at Hanwell.—On the 29th June 1844, Dr Conolly concluded his third annual series of gratuitous clinical lectures on insanity, at the Middlesex County Lunatic Asylum, Hanwell. These lectures were delivered under the sanction of the county magistrates, by whose permission the class had access to the wards of the Hospital for the purpose of studying mental maladies.

The class was formed as follows:—Medical practitioners were admitted on application, and tickets of admission were sent to the hospital schools of the metropolis, two to each of the larger, and one to the smaller. The lectures were delivered on successive Saturdays. At ten o’clock, the class assembled in the committee-room of the Asylum at Hanwell, where it was met by Dr Conolly and the two assistant physicians, Drs Begley and Davey. Dr Conolly began by giving some remarks on the recently admitted cases, and prominent features of other cases, and then directed the attention of the class to certain patients in the wards as illustrations of the subject of the day’s lecture. The class then divided into three sections, each conducted by one of the physicians; and sepa-

rately visited the wards, where cases of interest were brought under its notice by the physician who accompanied the section. At twelve o'clock, the sections reassembled in the committee-room, where an excellent luncheon, provided by the establishment, awaited them. At one o'clock, the class proceeded to an apartment of the Governor, which he kindly lent for the occasion, to hear Dr Conolly lecture. The series consisted of eight lectures, which embraced the following subjects:—1. An exposition of the principles, advantages, and practice of the non-restraint treatment; 2. Mania, both in its recent and chronic forms; 3. Melancholia; 4. Insanity combined with epilepsy; 5. Puerperal insanity; 6. Insanity combined with paralysis, including that form of paralysis which was first described by MM. Bayle and Calmeil at Charenton, Paris, and which has only been found combined with insanity; 7. General observations on mental derangement; 8. On the construction of lunatic asylums, in relation to the cure and safe custody of patients; and, 9. On the management of asylums for the cure of lunacy, as distinguished from those for the refuge of incurables.

The object of these lectures was not to give a complete exposition of the vast subject of mental maladies, but simply to impart such clinical instruction on the more common forms of mental derangement, as is calculated to give medical men some practical knowledge of that class of human ills. Dr C. stated that he had left out nearly all points requiring lengthened discussion. He had said very little upon the morbid anatomy, because experience had satisfied him that he was less capable of connecting any particular form of insanity with any particular lesion than he had fancied when he had not seen much practice, but had derived most of his knowledge from reading.

A lucid arrangement of the subject, a precision, terseness, and elegance of language, combined with great acuteness of observation and profundity of thought, characterised the lectures. The active benevolence which is so judiciously directed for the cure of the patients, and the unwearied attention to the comforts of the incurable, made a strong impression on the class; as did also the fact, that authority is, unfortunately, so subdivided in the management of the asylum, that the orders of the non-medical staff are able to, *and too frequently do*, neutralize the remedial measures of the physician. The class were deeply impressed with the value of the non-restraint treatment of the insane, to which they gave expression in an address which they presented to Dr Conolly at the close of the last lecture, and which the Doctor received and acknowledged in an appropriate manner.—R^D. C.

Dr Davey's Appointment in Ceylon.—The authorities of Ceylon being about to establish in that island an asylum for lunatics, applied to the Government for a medical superintendent, and expressed a great desire for one from Hanwell. Dr Davey, an assistant physician of the Hanwell Asylum, and a zealous phrenologist, has received the appointment, and, with Mrs Davey and family, sailed for his destination in July.—R^D. C.

Bethlem Hospital.—We have just learned, accidentally, that it was resolved unanimously at the last meeting of the committee, in addition to the numerous extensions and improvements that have taken place, and are still going on, within the walls of this noble institution, to increase the salaries of the physicians by the sum of L.50 per annum; and farther, to add the amount of four pupils' fees to the whole, the tickets being placed at the disposal of the Governors and medical officers of St Thomas' and Bartholomew's Hospitals, to be awarded as prizes to the

two most deserving pupils in each school respectively. The committee of Bethlem Hospital are said to have it especially in view, by this wise and worthy liberality, to extend a knowledge of the pathology and treatment of insanity; and thus to make the establishment over which they preside a means of benefit to the public at large, as well as of advantage to the individuals who receive medical assistance, and now, in the majority of instances, recovered health within its walls. This is a truly noble spirit, and reflects the highest honour on the president, treasurer, and committee of Bethlem Hospital.—*Medical Gazette*, July 12. 1844.

Society for improving the Condition of the Insane.—(President, The Right Hon. the Earl of Shaftesbury.) The Premiums offered by the Society for the ensuing year are:—1. To the Author of the best Essay upon the Pathology and Treatment of Puerperal Insanity, a Prize of Twenty Guineas, if deemed of sufficient merit. 2. To the Author of the next best Essay, a Prize of Ten Guineas. The original copies of both Essays to belong to the Society. 3. To the Male Attendant upon the insane who shall produce the best Testimonials, a reward of Three Guineas. 4. To the Female Attendant upon the insane who shall produce the best Testimonials, a reward of Three Guineas. 5. To the Male Attendant upon the insane who shall produce the next best Testimonials, a reward of Two Guineas. 6. To the Female Attendant upon the insane who shall produce the next best Testimonials, a reward of Two Guineas. The rewards to Attendants are limited to those in the metropolis and surrounding counties of Surrey, Kent, Essex, Hertfordshire, and Buckinghamshire. The Essays to be sent sealed, with a motto, and accompanying letter containing the author's name and address. The Essays and Testimonials to be addressed to Thomas Coutts Morison, Esq., Hon. Sec. to the Society, 26 Cavendish Square, London, on or before the 1st day of February 1845. The Premium of Twenty Guineas offered last year by the Society for the best Essay upon the "Distinction between Crime and Insanity," was awarded to Mr Morison, of King's College, London; as was also the Premium of Ten Guineas offered for the best Tabular Form of keeping Cases of Mental Diseases.

The Flatheads of North America.—Professor Horner of Philadelphia, in his *Special Anatomy and Histology*, 6th edition, i. 130 (Philad. 1843), mentions that, among the Indians at the Cascades, and the Tschenuks at Fort Vancouver, on the Columbia River, he saw several babes who were undergoing the barbarous process of flattening the head. He describes the process, and says that the deformity disappears partly as they grow old. "The Cascade Indians and Tschenuks," he adds, "are remarkable for their ingenuity in constructing convenient and beautiful canoes, nets, and wooden utensils; they are in nowise considered inferior to their round-head neighbours. Their constant intercourse with the whites has rendered them more vicious, poor, and indolent; they are much addicted to lying, stealing, and immorality." Professor Horner thus confirms the statement of Mr Tolmie (*ante*, xv. 233) as to the non-inferiority of the intellectual character of the Tschenuks.

The Athenæum on Phrenology and Mesmerism.—We have often expressed our opinion of the so-called sciences of Phrenology and Mesmerism, and had hoped that both would, ere this, have been consigned to the lumber-room, where most people of common sense have stowed

astrology, alchemy, hobgoblins, and witches ; but we find, from the books before us, that we were mistaken, and that these two monstrosities, unable to stand alone, have entered into the bands of matrimony.—*Athenaeum*, June 29. 1844.

Books Received.—The Medico-Chirurgical Review, British and Foreign Medical Review, and Zoist, for July 1844.—The Medical Times, weekly.—Zeitschrift für Phrenologie, No. IV., Dec. 1843.—Reports of the Directors of the Montrose and Dundee Lunatic Asylums for 1844.—M. Chailly's Practical Treatise on Midwifery, translated and edited by G. S. Bedford, M.D. New York, 1844. 8vo, pp. 530.—The Works of W. E. Channing, D.D. Vol. VI., 3d edition. Glasgow : Hedderwick & Son, 1844. Post 8vo, pp. 453.—Spurzheim's Outlines of Phrenology. New edition. Royal 8vo, pp. 24. Glasgow : J. & G. Goyder, 1844.—Spurzheim's Sketch of the Natural Laws of Man. Royal 8vo, pp. 34. Glasgow : J. & G. Goyder, 1844.—The Harmony between the Scriptures and Phrenology. By Joseph A. Warne, A.M. 18mo, pp. 26. Glasgow : J. & G. Goyder, 1844.—Man, as a Physical, Moral, Religious, and Intellectual Being, considered Phrenologically. By a Member of the Alloa Phrenological Society. 8vo, pp. 16. Glasgow : J. & G. Goyder, 1844.—An Essay on the Superiority of Moral Force over Physical Force, &c., addressed to the People of Ireland. Dublin, 1843. Pp. 16.

Newspapers Received.—Tyne Mercury, June 25.—Leicester Mercury, June 29.—Wolverhampton Chronicle, July 3.—Manchester Guardian, July 10, 31 ; Aug. 3.—The Economist, July 13.—Nottingham Review, Aug. 9, 23, 30.—Kilmarnock Journal, August 15 ; Sept. 5.—Manchester Courier, August 17.—Glasgow Constitutional, Sept. 7.—Glasgow Examiner, Sept. 7.—Glasgow Argus, Sept. 5, 19.—Glasgow Citizen, Sept. 7.

To Correspondents.—The following communications have been received :—Continuation of Mr Cull's paper on Language.—Illustrations of the Functions of the Organ of Size, and a short article on the Scope of Education, by Mr Hytche.—Case of Cerebral Disease, by Dr Kilgour of Aberdeen.—Observations by Mr Prideaux on Mr W. R. Lowe's paper on Phreno-Mesmerism in our July No. (Mr Prideaux says that his intention, in the essay criticised by Mr Lowe, was not to represent volition as adequate to explain all the phenomena of Mesmerism, but to demonstrate that there is no sufficient evidence that those phenomena prove the localities of the organs. His paper is so long that we doubt whether the insertion of the whole of it will be possible).—Several short communications have been received, and shall appear in our next Number.

Communications for the Editor (prepaid) may be addressed to Mr ROBERT COX, 25 Rutland Street, Edinburgh. Books or parcels, too heavy for the post, may be left (free of expense) with the London publishers, Messrs Simpkin, Marshall, & Co., Stationers' Hall Court.—Articles intended for the next following Number must always be with the Editor six weeks before the day of publication. Communications for the section of "INTELLIGENCE," and also Advertisements, should be in hand at least a fortnight before the same day. Charges for advertising :—Eight lines, 6s. ; twelve lines, 7s. 6d. ; every additional line, 6d. ; half a page, 14s. ; a whole page, 25s. Advertisements may be sent to the publishers in Edinburgh or London.

EDINBURGH, 1st October 1844.

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