

THE
PHRENOLOGICAL
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VOL. X.

JUNE 1836—SEPTEMBER 1837.

Homine, naturæ minister et interpres, tantum facit et intelligit quantum de naturæ ordine re val mente observaverit; nec amplius scit, aut potest.—BACON.

Quiconque n'est pas poussé par un instinct inné d'observation; quiconque trouve trop difficile l'abnégation de ses opinions et de son savoir puisé dans l'instruction antérieure; . . . 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. Cependant ce sont les seuls moyens de vérifier mes découvertes, et les seuls propres à les rectifier ou à les réfuter.—GALL.

One fact is to me more positive and decisive than a thousand metaphysical opinions.—SPENCER.

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CONTENTS OF VOL. X.

No. XLVIII.

1. Remarks on the Laws of Action of Benevolence and Destructiveness. By ROBERT COX, . . .	1	Study of Physiology as a branch of Popular Education. By JOHN FLETCHER, M. D., F.R.S.E.—	
2. Reply by Mr Hancock to Mr Watson's Comments on his Letter on Comparison and Wit, . . .	14	3. The Moral Reformer, and Teacher on the Human Constitution. By WM. A. ALCOCK —	
3. Remarks on a Notice of George Fox, . . .	19	4. Remarks on the Influence of Mental Cultivation and Mental Excitement upon Health. By AMARIAN BRIGHAM, M. D.—	
4. Reply to an Objection to Phrenology founded on a comparison of the Brains of Animals of different Species; and to the allegation that certain Animals are altogether destitute of Brain. By CHARLES CALDWELL, M. D. . .	27	5. The Necessity of Physical Culture to Literary Men, and especially to Clergymen. By EDWARD REYNOLDS, M.D. of Boston, . . .	71
5. Address by the Edinburgh Society for aiding in the General Diffusion of Science, . . .	36	13. Biography of the Blind. By JAMES WILSON, . . .	89
6. Anatomical Report on the Skull of Dr Spurzheim. By NATHANIEL B. SHURTLEFF, M. D. . .	39	14. The Presbyterian Magazine, May 1886, . . .	92
7. Pathological Contribution to Phrenology. By W. A. F. BROWNE, . .	45	15. An Introduction to Phrenology. By ROBERT MACHISON, . . .	96
8. Phrenology Simplified: being an Exposition of the Principles and Applications of Phrenology, &c. . .	52	16 —1. Testimonials on behalf of George Combe, as a Candidate for the Chair of Logic in the University of Edinburgh.—2. The Suppressed Documents; or an Appeal to the Public against the Conductors of the Scottish Guardian. By GEORGE COMBE, . . .	102
9. Statistics of Phrenology, . . .	54	17. Miscellaneous Notices:— Edinburgh, 112.—Glasgow, 113.—Montrose, ib.—Lauder, ib.—Liverpool and Manchester, ib.—York, 114.—Doncaster, ib.—Newcastle, 115.—Sunderland, 116.—Belfast, ib.—Cork, 117.—Paris, 118.—Derangement of the Faculty of Language, ib.—Circulation of Blood in the Brain, 119.—The "Times" on the Phrenologists, ib.—Edinburgh Pauper Lunatic Asylum, ib.—Modesty of the Literary Gazette, . . .	120
10. Remarks on the Erroneous Impressions and Spirit of Hostility at present existing, more especially amongst the Religious Public, in regard to the Diffusion of Scientific Knowledge in general, and of Phrenology and its supposed effects in particular. By Mr H. G. WRIGHT, . . .	57		
11. Case of Injury sustained by the Organ of Language. By JAMES INGLIS, M. D., M. R. C. S. E. . .	68		
12.—1. The Physiology of Digestion, considered with relation to the Principles of Dietetics. By ANDREW COMBE, M. D.—2. Discourse on the Importance of the			

No. XLIX.

- | | |
|--|---|
| <ol style="list-style-type: none"> 1. Insanity and Crime, . . . 121 2. General Observations on the Principles of Education : for the Use of Mechanics' Institutions. By Sir G. S. MACKENZIE, Bart. F. R. S. L. & E. &c. (Review), . . . 141 3. Phrenological Controversies, . . . 150 4. Objections to Dr Spurzheim's Classification and Nomenclature of the Mental Faculties. By ROBERT COX, . . . 154 5. A Dream, . . . 164 6. Answer to Mr Hancock's Reply to Mr Watson's Comments on his Letter on the Functions of Comparison and Wit, in the 48th Number of the Phrenological Journal, . . . 168 7. Thoughts on Physical Education, and the True Mode of Improving the Condition of Man ; and on the Study of the Greek and Latin Languages. By CHARLES CALDWELL, M. D. Professor of the Institutes of Medicine and Clinical Practice in Transylvania University. With Notes by ROBERT COX, and a Recommendatory Preface by GEORGE COMBE (Review), . . . 170 8. Moral Management of the Insane, . . . 187 9. A Sketch of the accordance between the Inductive Philosophy of Bacon, and the aptitude of the Human Intellect, as demon- | <ol style="list-style-type: none"> strated by Phrenology. By DANIEL NOBLE, Member of the Royal College of Surgeons in London, and President of the Manchester Phrenological Society, . . . 190 10. The Clergy Vindicated from the Charge of Hostility to the Diffusion of Science ; being an Answer to the Pamphlet of Mr H. G. Wright. By a Phrenologist (Review), . . . 201 11. Case of John Linn, a Parricide, . . . 207 12. Case of Spectral Illusions following an Injury occasioned by a Blow on the Forehead, . . . 217 13. Edinburgh Logic Chair, . . . 218 14. The Harmony of Phrenology with Scripture ; shewn in a Refutation of the Philosophical Errors contained in Mr Combe's " Constitution of Man." By WILLIAM SCOTT, Esq. (Review), . . . 235 15. Statistics of Phrenology : being a Sketch of the Progress and present State of that Science in the British Islands. By HEWITT C. WATSON. (Review), . . . 235 16. Miscellaneous Notices:—London, 243.—Bath, 244.—Manchester, 245.—Barnard Castle, ib.—Warrington, ib.—Forfar, ib.—Aberdeen, 246.—Paris, ib.—New Orleans, 247.—Dundee and Montrose Lunatic Asylums, 247 |
|--|---|

No. L.

- | | |
|--|---|
| <ol style="list-style-type: none"> 1. View of the Present State of Knowledge respecting the Organ of Alimentiveness, . . . 249 2. Specimen of Anti-Phrenological Facts.—Correspondence between Mr G. Combe and Mr David Dunn, Teacher at New Lanark, . . . 267 3. Change of Character and Talents, and a simultaneous Change in the Form of the Head, . . . 270 4. A Popular View of the Progress of Philosophy among the Ancients. By JOSHUA TOULMIN SMITH of Lincoln's Inn, Esq. (Review), . . . 273 | <ol style="list-style-type: none"> 5. A Fact on the Connection between Mental Emotions and certain States of the Body. By HEWITT C. WATSON, . . . 283 6. Phrenological Analysis of Patriotism. By W. B. HODGSON, . . . 285 7. Comparative Merits of the Mental Philosophy of the School of Reid and Stewart, and of the Phrenologists, . . . 301 8. The Philosophy of Phrenology Simplified. By a Member of the Phrenological and Philosophical Societies of Glasgow. (Review), . . . 337 |
|--|---|

9. On the Progressive Diffusion of Phrenology, . . . 346
10. Case of Disease in the Organ of Combativeness on the Left Side, attended with Change of Temper; and of Disease in the Left Corpus Striatum, attended with Loss of Knowledge of the Signification of Words. Reported by GEORGE COMBE, . . . 352
11. Short Communications :—Statistics of Phrenology, 368.—Function of Wit, *ib.*—Recent Attacks on Phrenology, 369.—Faculty of Imitation, 370.—Letter to the Editor, *ib.*—The Athenæum, Oct. 22. 1836, 371.—Letter to the Editor, 372.—Aristotle's Opinions concerning the Functions of different parts of the Brain, *ib.*—Alphabets for the Mind, . . . 373
12. Short Notices of Books :—Watson's Examination of Mr Scott's Attack upon Mr Combe's Constitution of Man, 374.—Combe's System of Phrenology, 376.—Combe's Elements of Phrenology, 377.—Combe's Outlines of Phrenology, *ib.*—Simpson's Philosophy of Education, *ib.*—Sir John Sebright's Observations upon the Instinct of Animals, *ib.*—

- James's Thoughts on Phrenology, 379.—Saunders's What is Phrenology? 380.—Broussais' Cours de Phrénologie, and Lectures on Phrenology in the Lancet, 381.—The Quarterly Review on Phrenology, *ib.*—Phrenology Vindicated, being a Reply to the Quarterly Review, by J. Toulmin Smith, Esq. *ib.*—Cox's Selections from the Phrenological Journal, . . . 382
13. Miscellaneous Notices :—Edinburgh, 382.—Aberdeen, 383.—Elgin, 384.—Glasgow Phrenological Society, *ib.*—Forfar, *ib.*—Carlisle, 386.—Bath, *ib.*—Southampton, *ib.*—Newcastle, 387.—Portsmouth, 389.—Winchester, *ib.*—Sir G. S. Mackenzie's Application to Lord Glenelg, *ib.*—Tables of the Skull, 389.—Curious Case of Insanity, *ib.*—Advantages of Phrenology, 390.—Sense of Touch, *ib.*—Family Concerts, *ib.*—Head of Confucius, *ib.*—Curious Trial connected with Phrenology, 392.—Application of Phrenology to Religion, *ib.*—Disturbance of the Nervous System, *ib.*—Notice to Subscribers and Correspondents, 392

No. LI.

1. Sketch of the Character and Cerebral Development of the French Criminals Lacaenire and Avril, recently executed in Paris, . . . 393
2. On the Progressive Diffusion of Phrenology, . . . 400
3. Remarks on the Possibility of increasing the Development of the Cerebral Organs by adequate exercise of the Mental Faculties. By ANDREW COMBE, M.D. . . . 414
4. Case of Change of Dispositions simultaneously with Change in the Development of certain Organs in the Brain, . . . 426
5. Phrenological Opinions of John Gibson Lockhart, Esq. . . . 428
6. Some Reasons for concluding that the Faculty hitherto named Tune would be more philosophically denominated the Faculty of Sound. By JAMES SIMPSON, . . . 436

7. Case of Disease of the Brain, with corresponding Affection of the Mind. By ABRAHAM COX, M.D. . . . 449
8. Remarks on the Secretiveness of Thieves. By W. B. HODGSON, 451
Remarks on the above Communication, by Dr A. COMBE, . . . 455
9. The Phrenological Library. Edited by NAHUM CAPEN, Boston, U. S. (Review), . . . 458
10. Remarks on the Function of the Organ of Locality. By W. HANCOCK JUNIOR, . . . 462
11. Phrenological Account of James B. C. Hawkins. By Mr JOHN ISAAC HAWKINS. (From the Christian Physician and Anthropological Magazine, Nos. 3. and 5. of vol. ii.) . . . 469
12. American Annals of Phrenology.

- Nov. 3. and 4. of vol. iv. (Review), . . . 478
13. Discussion on Phrenology at the Royal Academy of Medicine at Paris, . . . 480
14. Case of John Jenkins, who was executed for Murder at Sydney, New South Wales, . . . 485
15. *Traité de Phrenologie Humaine et Comparée; accompagné d'un Magnifique Atlas in Folio de 120 Planches, contenant plus de 700 Sujets d'Anatomie Humaine et Comparée, d'une parfaite exécution.* Par J. VIMONT, M.D. &c. (Review), . . . 489
16. Case in which the Power of correctly appreciating Magnitude and Distance was Impaired, . . . 594
17. Short Communications:— Perception, Conception, Imagination, and Memory, 497.—Letter from C. T. Wood, Esq. 498.—London Popular Educational Association, 499.—Suggestions as to observing Development, 500.—On the Use of Languages to a Physician, 502.—Antiphrenological Facts, ib.—New Machine for taking Casts, 503.—Coleridge's Opinion of Phrenology, ib.—Effects of the Inequality of the Cerebral Hemispheres, ib.—Dr Spurzheim on

- Changes of Cerebral Development, ib.—Power of Fancy, ib.—Scott's "Position and Grouping of the Cerebral Organs," 504.—Reported Renunciation of Phrenology, by Mr G. Combe, 505.—Answer, . . . 505
18. Short Notices of Books:—Pratt's Remarks on Instruction in Schools for Infants, 505.—Solly on the Human Brain, its Conformation, Structure, Development, and Physiology; illustrated by References to the Nervous System in the Lower Animals, 506.—Combe's Lectures on Popular Education, 507.—A Key to Phrenology, 508.—Epp's Internal Evidences of Christianity deduced from Phrenology, . . . 509
19. Miscellaneous Notices:—Birmingham Mechanics' Institution, 509.—Canada, Montreal, ib.—Clonmel, 510.—Cotes, ib.—Edinburgh, ib.—Glasgow, ib.—Greece, ib.—Hampshire Philosophical Society, ib.—Manchester, 511.—New York, ib.—Newcastle, ib.—Portsmouth Phrenological Society, 512.—Quebec, ib.—Winchester, ib.—Wiesbeck Mechanics' Institution, 512

No. LII.

1. The violent Spirit at present deforming the Religious World, the excess and abuse of mere Animal Feeling, . . . 513
2. Copy of a Letter from Mr Thomas Morgan to Mr H. C. Watson, on the History and Statistics of Phrenology in Southampton, . . . 520
3. Notes on Weight, Force, and Resistance, . . . 525
4. Some farther explanations of the Doctrine of Resistance and Force, as set forth in Article I. of No. XLIII. of the Phrenological Journal, . . . 535
5. Cours de Phrenologie: Par F. J. V. BROUSSAIS, Membre de l'Institut, Officier de la Légion d'Honneur, Professeur à la Faculté de Médecine de Paris, In-

- specteur du Service de Santé des Armées, &c. (Review), . . . 542
6. An Introduction to Phrenology. By ROBERT MACNISH, LL.D., Author of "The Anatomy of Drunkenness," and "The Philosophy of Sleep," and Member of the Faculty of Physicians and Surgeons of Glasgow. (Review), 552
7. On the nature of the Evidence by which the Functions of different parts of the Brain may be established. By GEORGE COMBE, . . . 556
8. Case of A. P., a Deaf and Dumb Boy, . . . 566
9. Dr VIMONT on Concentrativeness, from his *Traité de Phrenologie*, tome ii. p. 210, . . . 567
10. Observations on the Faculty of Concentrativeness, as proposed

- by Mr George Combe, as a substitute for the Faculty of Inhabitiveness of Dr Spurzheim. By T. BERNARD DE LA FOSSE, Member of the Phrenological Society of Paris, . . . 572
11. Nursery Government; or Hints addressed to Mothers and Nursery-maids on the Management of Young Children. By Mrs BARWELL. (Review), . . . 580
12. Essay on the Temperaments, considered in relation to Cerebral Organization. Read at a Meeting of the Southampton Phrenological Class. By Mr S. C. . . . 583
13. The Pope versus Phrenology, . . . 600
14. Phrenological Analysis of Patriotism. By Mr W. B. HODGSON. (Continued from Vol. x. p. 301), . . . 602
15. Short Communications:—Animal Magnetism, 614.—Extract from the First Book of Osorin's Treatise "De Gloria," 614.—The Use and Abuse of Secretiveness, 615.—Linn, the Belfast parricide, 616.—Proceedings of the Phrenological Society of Aberdeen, ib.—Letter on the Functions of Locality, 618.—Remarks on Tune as the Organ of Sound, ib.—A curious Dream, 620.—Dinner of the Dublin Zoological Society, . . . 620
16. Short Notices of Books:—1. The Reasonableness of Phrenology; containing a Sketch of the Origin, Progress, Principles, Proofs, and Tendencies, of that Science. By Joshua Toulmin Smith, Esq. of Lincoln's-Inn, 624.—2. Acquisitiveness, its Uses and Abuses. By D. G. Goydes, Member of the Glasgow Phrenological Society, 626.—3. Transactions of the Royal Society of London, article by Professor Tiedemann of Heidelberg, on a Comparison of the Negro and European Skulls, 627.—4. Letters on Phrenology. By John Slade, M.D. . . . 629
17. Miscellaneous Notices:—Bath, 630.—Bristol, ib.—Edinburgh, ib.—Manchester, 631.—Phrenological Society, ib.—Star in the East, or Wisbech and East of England Gazette and Advertiser, —Mechanics' Institution, ib.—Webb Street Medical School, London, 632.—The Edinburgh Medical and Surgical Journal, ib.—Dr Leach, . . . 632

No. LIII.

1. On the Will. By Mr A. DEAN, 633
2. Dr VIMONT on the Organ of Attachment for Life or Marriage, 653
3. Correspondence between Mr Sidney Smith and the Editor of the Phrenological Journal, . . . 658
4. Phrenological Development of Alexander Millar. By Mr SIDNEY SMITH, . . . 664
5. On the Unknown Organ situated behind Ideality, . . . 671
6. Philanthropic Economy; or the Philosophy of Happiness practically applied to the Social, Political, and Commercial Relations of Great Britain. By Mrs LOUDON. (Review), . . . 674
7. What Asylums Were, Are, and Ought to be; being the substance of five Lectures delivered to the Managers of the Montrose Lunatic Asylum. By W. A. F. BROWN, Superintendent of the Montrose Asylum, &c. (Review), . . . 687
8. Letter from Mr G. COMAR on the Institutions of Germany, . . . 696
9. The present State of Phrenology in the University of Cambridge, 706
10. Dr Lewins and Mr Craig versus Phrenology, . . . 710
11. Phrenological Analysis of Patriotism. By Mr W. B. HODGSON. (Continued from Vol. x. p. 613), . . . 716
12. Short Communications:—Excitement of Philoprogenitiveness in a Cat, 725.—Influence of certain states of the Body upon the Mental Faculties, 727.—The Mind more vigorous in Cold Weather than in Hot, 726.—Importance of the Study of the Mental Organs, 728.—Ad-

<p>vantage of habitually regarding Insanity as a Bodily Disease, 728.—Letter to the Editor on Dreaming, 729.—Mr Noble on Force, 730.—Mr Meymott on Tune and Sound, 731.—Case of Hydrocephalus. By Alex. Hood, Esq. Surgeon, 734.—Sketch of the Character of William Godly, 735</p> <p>13. Short Notices of Books:—1. Essay on the Disorders incident to Literary Men; and on the best means of Preserving their Health. By W. Newnham, Esq. 737.—</p>	<p>2. Some Account of Phrenology, its Nature, Principles, and Uses. By W. C. Engledue, M.D. . . . 740</p> <p>14. Miscellaneous Notices:—Birmingham, 741.—London Mechanics' Institution, 742.—Wick, ib.—Thornhill, ib.—Star in the East, or Wisbech and East of England Gazette, 743.—Dr John Brown's (Workshop) Letter to Dr Macnish, ib.—The Murderer Greenacre, 743</p> <p>Notice to Correspondents, . . . 743</p> <p>Index to Vol. X. 744</p>
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WOOD-CUTS IN THIS VOLUME.

Skull of Dr Spurzheim, 41.—Head of John Linn, 211.—Marked Skull by Dr Vimont, 568, and 655.

THE
PHRENOLOGICAL JOURNAL.

No. XLVIII.

ARTICLE I.

REMARKS ON THE LAWS OF ACTION OF BENEVOLENCE
AND DESTRUCTIVENESS. By ROBERT COX.

IN a former essay (vol. ix. p. 402) I collected a multitude of facts and illustrations, very diverse in their aspect, and brought together from the most dissimilar sources, but all tending to support the conclusion, that, by a law of human nature, the organ of Destructiveness is uniformly excited sympathetically, whenever any other of the cerebral organs is *disagreeably* active,—the intensity of the destructive emotion varying with that of the exciting pain. My present object is to shew, that, by a law perfectly analogous, the organ of Benevolence receives excitement from the *agreeable* or *pleasurable* action of the organs of the other mental powers.

As formerly observed, it is through the medium of those faculties which predominate in the human mind, and which, by reason of their strength, are most liable to experience painful as well as pleasurable emotions, that Destructiveness is most frequently roused. Such a faculty, *par excellence*, is Self-Esteem. Hence an insult is very apt to kindle him who receives it into fury. On the other hand, by offering *gratification* to Self-Esteem, the benevolence of human beings is wonderfully increased. Goodwill and clemency, therefore, are every where sought for by means of submissive and respectful conduct towards those whose favour it is wished to obtain. So universally is this known and understood, that it hardly stands in need of illustration. A humorous anecdote, related by Selden in his *Table-Talk*, will therefore suffice for the purpose. A Spaniard being told by his confessor what torments were inflicted by the devil upon sinners, replied, “I hope my lord the devil is not so cruel.” The confessor reproving him for this,—“Excuse me,” said the Spaniard,

"for calling him so: I know not into what hands I may fall; and if I happen into his, I hope he will use me the better for giving him good words."

Objects which gratify Philoprogenitiveness and Adhesiveness uniformly attract the benevolent regard of the party to whom they give delight. A man's wife, children, and friends, are treated by him with an amount of kindness far beyond what is extended to his fellow-citizens at large. Dr Thomas Brown expresses nearly the same idea, by saying, that "we desire in a particular degree the happiness of those whom we love, *because we cannot think of them without tender admiration*;"* and indeed, so uniformly is Benevolence excited towards the objects of the domestic affections, that the results of its activity in such cases have frequently been confounded with those of the propensities by which it is stimulated.† Philoprogenitiveness and Adhesiveness seem to me to be the sources of nothing beyond mere attachment, and desire of the society of their respective objects; deeds of kindness, intentionally such, I humbly conceive to arise from Benevolence alone. Where Amativeness and Adhesiveness concur in rendering a person extremely agreeable, the kindly feeling thus occasioned as an accompaniment, or rather constituent, of love, is of a very intense and decided character. There is nothing, in fact, which a lover will not do in order to please his mistress:—

"How have I seen a gentle nymph draw nigh,
Peace in her ais, persuasion in her eye;
Victorious tenderness! it all o'ercame,
Husbands looked mild, and savages grew tame."‡

Here, consequently, is found a clear and obvious explanation of the fact, that, generally speaking, there is much more of kindly feeling between males and females than between persons of the same sex. And the more agreeable a lady is rendered by her beauty, the more flattering are the marks of attention she receives.

With respect to Acquisitiveness, it is sufficient to remark, that in all countries, and from the earliest ages of the world down to our own time, gifts have been resorted to as one of the surest and most effectual means of exciting good-will. Love of Approbation is another feeling very generally appealed to for compassing the same end. Savage and other heathen nations, ascribing to their deities the passions and desires of which they themselves were conscious, have universally sought to appease

* Lectures, III. 541.

† See in particular Dr Gall's remarks on the influence of Adhesiveness upon the character—*Sur les Fonctions du Cerveau*, III. 475-7.

‡ Young's Love of Fame. Sat. 5, v. 109-112.

their wrath and obtain their favour by offerings and praise, while they have likewise addressed the most submissive language and attitudes to the Self-Esteem of the supernatural powers. The Greeks and Romans, with the same object, reared sumptuous temples in honour of their divinities. Flattery, delightful alike to Self-Esteem and Love of Approbation, has always been employed as a means of producing good-nature and generosity. Thus, it is related of Voltaire, that, during his residence in England, he was mobbed by the populace, and in danger of suffering ill usage at their hands. Having harangued them, however, on the noble manner in which Englishmen were famed for treating foreigners, their temper underwent a radical change, and they carried him away in the utmost good-humour on their shoulders. It is said also of Agesilaus, that, having heard, during the Theban war, that some of his soldiers intended to betray an important post to the enemy, he entirely conciliated them by addressing them as "comrades," affecting at the same time ignorance of their plot.

When bodily *pain* is inflicted upon any one, resentment (or activity of Destructiveness) is the immediate consequence. So *agreeable* applications to the sense of feeling have always the opposite effect. Parents instinctively have recourse to fondling and caresses in order to excite good-nature in their children; and the same method is widely employed in pacifying the lower animals.

The foregoing remarks apply to cases where pleasure is given. I shall now endeavour to shew that, just as the existence of an aggressor is not indispensable to the excitement of Destructiveness, so is the existence of a benefactor not indispensable to the stimulation of Benevolence. *Pleasurable feelings, however caused, have the effect of calling Benevolence into action.*

Various illustrations were given in the essay above referred to, of the fact, that bodily uneasiness, arising from indigestion, hunger, and other causes of a similar nature, sharpens the temper in a notable degree; and it is no less obvious that a contrary result ensues from the *agreeable* sensations which pervade the system in a state of vigorous health, especially during fine weather, and after a hearty meal. Hence it follows, that the benevolent acts performed in such a combination of circumstances are no more to be regarded as indicating habitual generosity, than the irritability found in the former case can justly be considered as a sign of permanent ill-nature.

"Not always actions shew the man: we find
Who does a kindness, is not therefore kind:
Perhaps prosperity becalmed his breast;
Perhaps the wind just shifted from the east." *

Carnivorous animals are boldest and most savage when hungry,* the final cause of which is apparent; and among ourselves an empty stomach is wonderfully inimical to generous and benevolent feeling. So much does hunger tend to bring the moral sentiments under subjection to the selfish feelings, that Cardinal de Retz advises politicians never to risk a motion in a popular assembly, however wise or just it may be, immediately before dinner. Dr Rush mentions that one of the worthiest men he ever knew, who made his breakfast his principal meal, "was peevish and disagreeable to his friends and family from the time he left his bed till he sat down to his morning repast, after which cheerfulness sparkled in his countenance, and he became the delight of all around him."† Shakespeare finely alludes to the same law of human nature in his tragedy of *Coriolanus*, where the failure of an attempt by Cominius to appease the haughty and offended general is accounted for in the following manner:—

Menenius. "I'll undertake it:
I think he'll hear me. Yet to bite his lip,
And hum at good Cominius, much unhearts me.
He was not taken well; *he had not dined.*
The veins unfilled, our blood is cold, and then
We pout upon the morning, *are unapt*
To give or to forgive; but when we've stuffed
These pipes, and these conveyances of blood,
With wine and feeding, *we have suppler souls*
Than in our priest-like fasts. Therefore I'll watch him
Till he be dieted to my request,
And then I'll set upon him.
Brutus. You know the very road into his kindness,
And cannot lose your way."—*Act. V. Scene 1.*

In like manner, when Sophia Western, in *Tom Jones*, intercedes with her father on behalf of Black George the gamekeeper, she is represented as wisely introducing the subject after dinner, when the squire had been enjoying himself over his bottle. The generosity of disposition so produced, she still farther increased through the medium of gratified Tune and Self-esteem, by playing three times over, without any solicitation, all his favourite airs—such as "Old Sir Simon the King," "St George he was for England," and "Bobbing Joan;" melodies of which she herself was no great admirer, and in general did not play without his special request. This, says the novelist, so pleased the good squire, that he declared, "if she would give him t'other bout of Old Sir Simon, he would give the gamekeeper his deputation next morning."—According to Lord Kames, who, however, carelessly omits, as usual, to mention his authority, one branch of worship among the inhabitants of the Molucca

* Combativeness, as well as Destructiveness, is excited by painful sensations; though, for the sake of brevity, the latter only is named in the discussions in the text. See vol. ix. p. 423-4. And other moral faculties besides Benevolence seem to be vivified by happiness.

† Rush's Medical Inquiries and Observations, vol. ii. chap. i.

Islands is to set meat before the malevolent spirits whom they adore, "hoping that when the belly is full there will be less inclination to mischief."* It was doubtless with a similar view, that the burning of fragrant incense was so generally introduced into the religious ceremonies of ancient heathen nations; for, as Dr Rush observes, "agreeable odours seldom fail to inspire serenity, and to compose the angry spirits."† And that disagreeable odours have the opposite effect, is countenanced by what Brydone states respecting the ferocity of the inhabitants of Mount Etna. "It put me in mind," says he, "of an observation the Padre della Torre, the historiographer of Mount Vesuvius, told me, that he had often made in the confines of Naples; that, in the places where the air is most strongly impregnated with sulphur and hot exhalations, the people were always most wicked and vicious. Whatever truth there may be in the observation, the people about Nicolosi at least seem to confirm it."‡ The bodily comfort arising from cleanliness seems in like manner favourable to the activity of the moral faculties; and hence, the practice of frequent ablution enjoined by the religious codes of the Jews and Mahometans is in accordance with sound philosophy. Sir John Pringle, in his Oration upon Captain Cook's Voyage, delivered before the Royal Society, alludes to the beneficial effects of cleanliness in promoting good order and other virtues among seamen. "Such," says he, "as were made more cleanly became more sober, more orderly, and more attentive to duty." On the same principle it is, that a person who goes to bed fatigued, uncomfortable, and ill-natured, rises next day with a temper much sweetened by the balmy influence of sleep. Nothing is more common in families and boarding-schools, for example, than to see boys who bear a slight degree of ill-will towards each other during the day, living on exceedingly good terms when snugly a-bed in the morning.§ It hence appears that bodily comfort and enjoyment are favourable, if not indispensable, to the exercise of Christian charity; while pain and affliction, contrary to the prevalent belief, instead of improving the temper, decidedly tend to sour it. In this view it is not surprising to find Hannah More recording it as the result of her experience that—"I see by every fresh trial, that the time of sickness is seldom the season for religious improvement." || In

* Sketches, B. III. Sk. 3, chap. iii. § 1.

† Medical Inquiries and Observations, vol. ii. ch. i. p. 35.

‡ Brydone's Tour through Sicily and Malta, Letter ix. vol. i. p. 165.

§ The influence of bodily comfort and uneasiness on the temper is most obvious in uneducated persons, especially where the moral and intellectual powers are weak, and above all in children and savages. In civilized life we learn to regulate and control our instincts to such an extent, that their natural operation is sometimes hardly discoverable. This remark should not be lost sight of in perusing the present essay.

|| Memoirs of H. More, II. 111.

deed so hostile is every uncomfortable feeling to the display of amiable and moral qualities, that Benjamin Franklin regarded a long and disagreeable voyage as a certain means of detecting even the smallest tincture of ill-temper in a person's composition. " 'Tis a common opinion among the ladies," says he, " that if a man is ill-natured, he infallibly discovers it when he is in liquor. But I, who have known many instances to the contrary, will teach them a more effectual method to discover the natural temper and dispositions of their humble servants. Let the ladies make one long sea-voyage with them, and if they have the least spark of ill-nature in them, and conceal it to the end of the voyage, I will forfeit all my pretensions to their favour."* That the dispositions are often improved in seasons of affliction is true; but such a result seems to be indirectly produced, and by no means invariably. From divers facts and illustrations now and formerly adduced, it evidently appears that the *direct* result of grief and bodily pain is an increase of the power and activity of Destructiveness; and, if I mistake not, experience shews that an improvement of temper takes place only where little or no uneasiness is felt. Its real cause is not the affliction, but the kind offices of friends, the religious and philosophical impressions which it is apt to revive, and, above all, exemption from the cares and troubles of the world—from every influence that tends to irritate the inferior feelings. Here I am constrained to dissent from the opinion expressed on this subject by Dr Spurzheim:—" Misery," says he, " exercises Benevolence and improves the softer feelings, whilst riches are prone to excite and encourage the lower passions; and in this sense it may be said that the Lord inflicts pain upon those he likes, that is, they grow better; and Jesus Christ condemned riches."† I dissent also from Dr Rush, who favours the same notion, that bodily pain is efficacious in extirpating vice and promoting virtue. He adds: " If pain has a physical tendency to cure vice, I submit it to the consideration of parents and legislators, whether moderate degrees of corporal punishments, inflicted for a great length of time, would not be more medicinal in their effects, than the violent degrees of them, which are of short duration."‡ Such views, it appears to me, are at variance with daily experience; and accordingly, by other writers of eminence, very opposite statements are made. Thus Dr Barlow, at once an experienced physician and an enlightened phrenologist, affirms in explicit terms, that " the irritability of mind to which weakness and ill-health are prone, is sure to act unfavourably on all the

* *Memoirs of the Life and Writings of Benjamin Franklin*, l. 10.

† *Philosophical Principles of Phrenology*, Boston edition, 1833, p. 69.

‡ *Medical Inquiries, &c.* vol. ii. ch. 1. p. 30.

moral feelings.* And Dr Caldwell loudly denounces, as a piece of "unqualified mockery," the employment of corporal punishment for the moral reformation of criminals. "Such discipline," says he, "cultivates no moral or intellectual faculty. It neither communicates knowledge nor ministers to virtue. It excites smothered resentment, hatred, and fear—awakens and nourishes a propensity to revenge—and teaches caution, concealment, and artifice; and there its influence ends."† Nor is *mental* uneasiness a whit more conducive than *bodily* to the improvement of the temper; on the contrary, the opposite effect is usually seen to ensue. The true principle is well brought out in the following couplet of Crabbe, forming part of his description of an ill-matched husband, in the *Tales of the Hall*:—

"Regret, uncheck'd by hope, devours his mind;
He feels unhappy, and he grows unkind."

By the same principle is explained the well known effect of poverty in putting love to flight. And with respect to the alleged demoralizing influence of prosperity, I am led by observation to believe that the possession of a competent fortune does in reality sweeten instead of spurs the temper, while biting penury occasions precisely the opposite result. It is not easy for a man of sensibility to enjoy happiness while want and its thousand disagreeable attendants are staring him in the face; and even the common language of the people (by whom the words *annoying* and *provoking* are in practice held to be synonymous) leads directly to the conclusion here advocated, that it is not among the miserable that we ought to look for instances of supereminent good-nature. Thus is there a solid foundation for a remark of Dr Thomas Brown, that the man who is happy "becomes purer of heart, and more actively beneficent, by the very happiness which he feels."‡

Objects gratifying to Cautiousness invariably attract good-will; and hence the benefits so universally showered upon successful defenders of their country, and the cordial feelings with which we regard those on whom reliance is placed for protection, co-operation, or advice. The hostility of intestine party-broils is quickly transformed into friendship when a foreign enemy appears; for then the opposite factions look on each other with complacency as a help against the common foe. Indeed the rule which holds in this case is of general application—that those who in *any way* contribute to enjoyment become the objects of excited Benevolence, even though in other circumstances dislike rather than good-will might have existed. "A man and woman," says Helvetius, "escaping shipwreck, save themselves on a desert island; where, having no hope of ever seeing their native country, they are forced to lend their mutual

* Cyclopædia of Prac. Med. vol. i. p. 685.

† Phren. Jour. vii. 388.

‡ Lectures, iv. 396.

assistance to defend themselves from the wild beasts, to enjoy life, and to escape despair: no friendship can be more warm than that between this man and woman, who would have perhaps hated each other had they remained at Paris."*

It is evident that a knowledge of the laws above pointed out as regulating the action of Destructiveness and Benevolence, is susceptible of many beneficial applications in various departments of human affairs. If I have succeeded in establishing their existence, the reader will be prepared to think, with Mr Mill, that the physical comfort of a people is an indispensable prerequisite of their moral excellence; or, in the language of that acute writer, that "Nature herself forbids that you shall make a wise and virtuous people out of a starving one."† A judicious government ought, therefore, to employ every means calculated to increase the public happiness, not only by facilitating the attainment of a comfortable subsistence, and repealing vexatious laws, but also by encouraging public amusements, cheap literature, and institutions for the preservation and improvement of health. The ancient Greeks regarded music as a powerful means of ameliorating the dispositions of the people, inasmuch that Polybius attributes the harsh and cruel manners of the inhabitants of Cynete to their neglect of that amusement; and no attentive observer can have failed to notice how much good humour is produced among the populace by a concert in the street. A well-acted comedy has the same beneficial effect on the dispositions of the audience. But of all means of improving the temper, the pleasure of reading is one of the most efficient—both because literature, being ever at hand, is a constant protection from the misery of idleness, and because, to persons who have a taste for reading, the gratification which books afford is of the purest and most elevated kind. Dr Thomas Brown remarks impressively on this subject, that "he to whom a book presents occupation, scarcely can be in circumstances in which this occupation is not in some degree at his command; and it is not easy to say, how much of happiness, and of that good humour which is no small part of morality, depends on the mere power of occupying ourselves agreeably with this exercise of our eyes and mind, as others, less happy in intellectual taste, are obliged to depend for occupation on exercises that require a greater number of circumstances to place them in their power."‡ For this reason, even if none other existed, the agreeable and instructive cheap literature, of which a deluge is weekly poured over Britain, would deserve to be considered as a mighty instrument for improving the morality of the nation.

* De l'Esprit, Essai III. ch. 14.

† Encyclopædia Britannica, 7th edit., Article Education, p. 4.

‡ Lectures, iii. 413.

The same principles are applicable to the business of education. If children are harshly treated, it is preposterous to expect from them a sweet and compliant temper; and, in like manner, if we restrain them from that free muscular exercise to which they are so strongly, and for such important purposes, impelled by nature, we must allow that the fretfulness arising from balked desire, impaired health, and uneasiness of body, cannot with reason be complained of. It farther appears from our principles, that emulation (or the tendency to strive for superiority) ought not to be called into play as a stimulus to exertion at school. It is true that emulation is implanted by nature in the human mind, and must therefore be intended for a useful purpose; but as Combativeness, Self-esteem, and Love of Approbation, the faculties from which it arises, generally perform this part of their duty—nay greatly exceed it—without foreign encouragement, they ought rather to be repressed than assiduously cultivated. Hence, the attainment of superiority and distinction ought never to be made, as in so many schools it virtually is, the leading object of the pupils, instead of holding the rank of a subsidiary motive; for in such cases the mortification felt by the unsuccessful competitors is decidedly injurious to their moral character. I do not concur with those who would absolutely extirpate emulation from the human mind; but rather believe with Lord Kames, that, “kept within proper bounds, it is a useful principle, and far from being unsocial; it becomes so only when by excess it degenerates into envy.”* Where the studies are themselves in accordance with the tastes and abilities of childhood, and where moral cultivation is equally attended to with intellectual, the mind will be intent upon the acquisition of knowledge, and emulation sufficiently kept in check; and it is probably in those cases only where the youthful mind is required to exert itself on subjects revolting to its nature, and where, consequently, Self-esteem and Love of Approbation must be strongly appealed to as inducements to application, that the struggle is one for victory, and every rival is regarded with a malignant scowl. In such circumstances emulation deserves every particle of the displeasure with which so many writers have visited it. The evils to which it then leads are vividly depicted by Cowper, in adverting to the sources of the high reputation enjoyed by “our public hives of puerile resort:”—

“A principle, whose proud pretensions pass
Unquestion’d, though the jewel be but glass—
That with a world, not often over-nice,
Ranks as a virtue, and is yet a vice;
Or rather a gross compound, justly tried,
Of envy, hatred, jealousy, and pride—

* Loose Hints upon Education, p. 142.

Contributes most perhaps t' enhance their fame ;
 And emulation is its specious name.
 Boys, once on fire with that contentious zeal,
 Feel all the rage that female rivals feel ;
 The prize of beauty in a woman's eyes
 Not brighter than in theirs the scholar's prize.
 The spirit of that competition burns
 With all varieties of ills by turns ;
 Each vainly magnifies his own success,
 Resents his fellow's, wishes it were less,
 Exults in his miscarriage, if he fail,
 Deems his reward too great, if he prevail,
 And labours to surpass him day and night,
 Less for improvement than to tickle spite.
 The spur is pow'rful, and I grant its force ;
 It pricks the genius forward in its course,
 Allows short time for play, and none for sloth ;
 And, felt alike by each, advances both :
 But judge, where so much evil intervenes,
 The end, though plausible, not worth the means.
 Weigh, for a moment, classical desert
 Against a heart deprav'd and temper hurt ;
 Hurt too perhaps for life ; for early wrong
 Done to the nobler part, affects it long ;
 And you are staunch indeed in learning's cause,
 If you can crown a discipline that draws
 Such mischiefs after it, with much applause."*

In practically applying Phrenology to the discovery of dispositions from cerebral development, it is of great importance to keep in view the laws which regulate the activity of Benevolence and Destructiveness ; for, *cæteris paribus*, a healthy man, in comfortable circumstances, and with few sources of annoyance around him, but, on the contrary, many which furnish him with enjoyment, will ever be found to have a much sweeter temper than he who is poor, unhealthy, and miserable. I have seen errors fallen into, which were clearly traceable to ignorance of the laws in question : without a knowledge of the modifying circumstances, it is impossible to draw sure inferences in that numerous class of cases where the moral and animal organs are nearly in *æquilibrio*. A man with such a head may be good-natured in time of prosperity and health, but is apt to become morose and fretful under the influence of poverty and disease.

By keeping the same laws constantly in mind, many occasions of domestic strife may be avoided. When a person speaks in a peevish and offensive tone, the conclusion is often too rashly drawn, that he does so with a deliberate intention to wound the feelings of the individual addressed ; whereas in fact he is probably labouring under the temporary excitement of Destructiveness by hunger, fatigue, indigestion, pecuniary embarrassment, or other source of annoyance, and will sincerely regret his

* Cowper's *Tirocinium*.—See the same evils admirably exposed in an essay "On Emulation as a Motive," in the *Educational Magazine*, No. 8. August 1835.

conduct when equanimity returns. There ought, therefore, to be no retort from the other side, for this but adds to the evil; on the contrary, he should be answered in calm and soothing language. Let no one expect to see good-humour and active politeness displayed by a person who is exhausted and uncomfortable. Let no complaint be uttered against him, because, on coming home in the evening, jaded and harassed by professional toil, he does not instantly wake himself agreeable, but sits down in sullen silence. Nor let any one resent the fretfulness of a female friend who speaks sharply at a season when irritability of temper is the natural result of a constitutional cause.* Finally, let no master whose servants are starved and contemptuously treated, look for meekness and good-natured obedience at their hands.

Another department in which a knowledge of the laws under discussion may prove useful, is the treatment of the insane. When *Combativeness* and *Destructiveness* are the organs diseased, a cure is to be effected chiefly by withdrawing whatever is calculated to occasion painful emotions, and by giving agreeable excitement to the other parts of the brain. By the former means, every circumstance tending to irritate the diseased organs will be avoided; while, by exciting *agreeable* feelings, not only will the vivacity of *Benevolence* be increased, but that of *Combativeness* and *Destructiveness* will be positively lessened. Such, at least, there are plausible grounds for expecting to be the result; for the propensities lose a portion of their activity, or become entirely dormant, at seasons when the moral sentiments are in play,—while violent action of the propensities unquestionably tends, during its continuance, to blunt the moral powers. This view is supported by a singular case, reported by Mr Grattan of Belfast, in a recent number of this Journal—the case of a gentleman on the top of whose skull there are two fissures, having the appearance of fontanels in children, and which are uniformly observed to be depressed when he is angry, in consequence apparently of the blood being withdrawn from the coronal region of the brain.† I may refer also to a circumstance incidentally mentioned of a very violent, combative, and brutal

* See on this subject, vol. ix. p. 421, note.

† See Phren. Journ. ix. 473. Since the publication of this remarkable case, the following details have been obtained by Mr Grattan from the gentleman's daughter, in reply to some queries which I sent him:—

1. How long may it be since you first perceived the "openings" in Mr B.'s head?—First observed the openings in my father's head in the summer of 1829. It was the summer previous to Dr Spurzheim's visit to Belfast.

2. Have you ever remarked whether the openings continued depressed so long as he continued angry? and, if so, how long? The depressions remained so long as he was under the influence of passion; and, as it subsided, the depressions gradually disappeared. Anger never remained long; only while excited by something that displeased.

3. Have

maniac whom Mr Combe saw in the Richmond Lunatic Asylum at Dublin—namely, that “he has a good deal of humour, *by the excitement of which his violence is easily subdued.*”^{*} This effect seems to result from the agreeable action of the sense of the ludicrous stimulating Benevolence, and extending a soothing influence to the animal feelings.

The treatment of criminals has already been touched upon. If the improvement of their dispositions be the grand aim of prison-discipline, harsh usage ought never to be resorted to as a means of effecting it. Bodily pain, although, like grief, it may lessen sensuality, can never improve the temper. By means of regular occupation of the mind in reading and reflection, and of the body in useful labour, with frequent visits from moral and intelligent persons, all that is possible in the way of reformation will be accomplished.

I shall conclude by noticing a few points on which the preceding discussion is calculated to throw light.

It was argued some years ago by an acute phrenologist, that revenge is a rude manifestation of Conscientiousness. The principles above expounded, however, completely demonstrate the fallacy of such a doctrine. The infliction of revenge is an instinctive act, not necessarily accompanied by the notion that we are entitled to perform it. No one will maintain that the snake which bites when trampled on is actuated by moral considerations, or that resentment is weakest among atrocious and unconscientious criminals. Nor is *gratitude* any more an attribute of Conscientiousness than the desire of revenge. While the latter is an impulse to punish those who have injured us, the former is, in like manner, simply a *disposition to augment the happiness of our benefactors*. The notion that remuneration is justly due may *accompany* this disposition, but is not essential to its existence. In Mr Combe's *Essays on Phrenology*, published in 1819, Conscientiousness was represented as the source of gratitude; but Sir George Mackenzie subsequently pointed out the inaccuracy of this view. “Were Conscientiousness alone concerned,” says he, “it would give us the feeling that we owed a debt which we were bound, and might be compelled, to pay. Gratitude appears to us to be a sentiment independent of any feeling of obligation, or of any desire to repay a favour conferred. No doubt it impels us to do a good action in return, when an opportunity

3. Have you ever perceived any thing like pulsation or throbbing in the openings? and have you ever seen them distended outwards instead of depressed? I have observed pulsations, but do not recollect seeing the parts distended.

* Phren. Journ. vi. 84.

offers itself; but a person in whom gratitude is powerful, never feels that a debt is paid, although in strict justice he may have overpaid it an hundred fold." * Mr Combe now concurs with Sir George Mackenzie, so far as to admit that "gratitude is much heightened by Benevolence;"† but if my views are well-founded, that sentiment does not merely increase the feeling, but actually constitutes its essential element. Do we not occasionally see unconscientious men grateful if Benevolence is largely developed? With Conscientiousness, however, their gratitude would be more intense.

In the analysis of Sympathy by Dr Andrew Combe, published in the *System of Phrenology*, the opinion is stated, that, "by a law of our constitution, the natural language of any active faculty invariably excites the same faculty to activity, and consequently gives rise to the same emotions, in the minds of those who witness it. The forbidding strut of great Self-Esteem, for instance, in a person whom we never saw before, addresses itself directly to our Self-Esteem; we instinctively *draw up*, and feel moved to support our own consequence by a coldness proportioned to his. In like manner, when we meet, for the first time, with a person whose countenance and gestures express kindness, candour, and open-hearted friendship, which are the natural language of active Benevolence, Conscientiousness, and Adhesiveness, the same emotions are excited in ourselves, and we instinctively return his advances with a kindness corresponding to his own."‡ Now it appears to me, that these effects take place, not under the operation of any such law as that imagined by Dr Combe, but simply because the natural language conveys a meaning calculated to rouse the corresponding faculty in the spectator. The forbidding strut of Self-Esteem calls that sentiment into action in ourselves, only in so far as it is significant to us of an insult or assumption of superiority on the part of the strutter—these being directly calculated to stimulate the faculty in us, just as by a fine landscape the sentiment of Ideality is called into play. That the mere natural language of Self-Esteem does not excite the same faculty in the spectators, is obvious from the fact, that where circumstances put all reference to self out of the question, no such consequence ensues: thus, though we see an actor on the stage exhibiting in perfection the natural language of arrogance, yet, being ourselves not in the least offended by the exhibition, we experience no inclination to "draw up," but are satisfied with laughing heartily. In like manner, we may see one man strutting up to another on the street, without feeling at all disposed to imitate his carriage; though, if *ourselves* strutted up to, Self-Esteem is touched by

* Illustrations of Phrenology, 1820, p. 145.
System of Phrenology, 3d edit. p. 302.

‡ Id. p. 546.

the insult, and its natural language, of course, is exhibited. That this is the consequence of the uncerimonious treatment alone, and not of mere perception of the natural language, appears from this, that an insult given quite unintentionally, and with the kindest and most respectful air, has exactly the same effect: I shall never forget the air of offended dignity with which a gentleman in a public office "drew up," when, in a moment of abstraction, half-a-crown was offered him as a compensation for his civility in shewing the building. So it is likewise with Destructiveness and Benevolence. We may see a man furiously enraged, without having our own Destructiveness excited in the least; while the tenth part of the concomitant verbal abuse, if lavished on ourselves, would immediately kindle our wrath into a flame. Thus also, the natural language of Benevolence fails to excite that faculty in us, if we are aware that the appearance is merely assumed. An open, sincere, and friendly countenance, produces good-will only in so far as it is significant of estimable qualities, and these, being agreeable to our own feelings, excite Benevolence through their medium. The views of Dr Combe on this subject, therefore, even though implicitly adopted by Dr Caldwell (who argues on this hypothesis against the corporeal punishment of criminals)* seem built on a sandy foundation. All the phenomena which really take place, are explained by the laws whose existence I have laboured to establish—namely, that Destructiveness is roused by the disagreeable action, and Benevolence by the agreeable, of every power of the human mind.

ARTICLE II.

REPLY by Mr GEORGE HANCOCK to Mr H. C. WATSON's Comments on his Letter on the Functions of Comparison and Wit, in the 46th Number of the Phrenological Journal.

TO THE EDITOR OF THE PHRENOLOGICAL JOURNAL.

LONDON, 9th February 1836.

SIR,—I regret that my absence from town during the past two months should have deprived me, until last week, of the opportunity of reading, in your 46th number, Mr Watson's comments upon my letter to Mr Combe, concerning the functions of Comparison and Wit; and still more, that a variety of occupation will prevent my attempting, at this moment, to enter upon a full and fair examination of the grounds of Mr Watson's

own opinions with regard to the true functions of those organs. I shall be most happy, however, upon a future occasion, to discuss the question at issue between Mr Scott and Mr Watson in the best manner I may be able; and I beg to solicit the forbearance of Mr Watson, and of your readers, if I now confine myself to so brief a reply to that gentleman's observations as I may hope to forward to you by possibility in time for publication in your next.

After the very candid acknowledgment I made at the commencement of my letter to Mr Combe, that "his System and Dr Spurzheim's were the only works which I had had an opportunity of consulting," I had not, perhaps, any reason to expect that my apparent ignorance of the views of Mr Watson and Mr Schwartz of Stockholm, could be considered by any of your readers as an argument against "my feeling so much interested in the progress and accuracy of phrenological science as I professed to be;" and the really unaffected manner in which I placed my letter entirely at Mr Combe's disposal, expressing my wish that it should appear in your Journal only in the event of that gentleman considering that any new light might be obtained by its publication, might, I think, have protected me from the implied accusation brought against me by Mr Watson, of presuming "to treat an agitated question as a question of science," without being duly qualified by previous acquaintance with his particular opinions. The fact, Sir, is, I think, already sufficiently obvious to most of your readers, that I have not the slightest pretension to the character of a phrenologist, and that I ventured upon this, to me, new arena only as a *moral reasoner*, assuming the facts to which the great masters of phrenology had borne testimony. I had seen, indeed, in Mr Combe's third edition, the brief notice of Mr Watson's "reasons," to which he alludes; but, if my recollection serve me, I found no commentary upon them, either favourable or otherwise; and certainly, as stated by Mr Combe, they failed to produce the slightest degree of conviction on my mind. With the reasonings of Mr Scott it was otherwise; and I was surprised to find arguments which I thought convincing over-ruled by Mr Combe and Dr Spurzheim, upon what appeared to me very insufficient grounds; and if "upon this hint I spake," I really do not understand why any gentleman should feel aggrieved. As between Mr Scott and Mr Watson, the question still remains *in statu quo*, to be debated between those two gentlemen and their supporters. My affair was only between Mr Scott, and Dr Spurzheim and Mr Combe.

Mr Watson appears to think that I have succeeded in making manifest the essential difference between "perceiving resemblances" and "not perceiving differences," which I endeavoured

to establish in my letter to Mr Combe ; but he seems not a little inclined to quarrel with me for accusing that gentleman and Dr Spurzheim of saying that " an organ perceived what did not exist." Of actually and literally charging these gentlemen with so great an absurdity, I certainly, however, am not guilty. I have merely shewn (if, indeed, as Mr Watson appears to think, I have shewn) that those gentlemen, by assuming a false analogy between two things in their nature essentially and *entirely* different, had been misled to set up an argument which, carried out to its full extent, necessarily involved the absurdity in question. But these are lapses to which the very highest order of intellect is at times liable.

Mr Watson admits, that the passage he has transcribed in his fourth paragraph from my letter to Mr Combe, is fairly reasoned from the assumption which he has written in Italics. The *assumption* is not mine. In his chapter on Comparison, Mr Combe says, in so many words (I write from memory), that Comparison compares things or qualities between which other organs perceive only difference ; that the organ of Colour compares colours, but Comparison colours to sounds, &c. I really cannot perceive the very great inaccuracy of saying, that things in many respects different are alike in others. We say that men are alike who resemble each other in any degree greater than that in which other men generally do. We even say that men are like monkeys, and monkeys like men, without any fear of being accused of affirming that mankind have tails, or that monkeys talk. Painters speak of " the harmony of colouring," and dilettanti musicians talk of the " lights and shades" of song ; but nobody ever dreams of charging the one or the other with saying that colours sing, or that sounds are visible. To me, therefore, the question appears tending rather to resolve itself into a mere dispute about terms, into which it is not my wish to enter any further than to say, that the term " conditions," proposed by Mr Watson, does not convey to my mind any very distinct idea ; and that, if it should be found necessary, as I think it will, for phrenologists still to avail themselves of the terms " resemblance" and " difference," it will be found impossible to abstract them from the objects which suggest the ideas which those words convey, and affix them to that intangible *something*, for which, I believe, no one adequate expression can be found in any language.

With regard to my " illustrative arguments," alluded to by Mr Watson in the fifth paragraph of his letter, I can only say, that the instances I have given are so very clear, that I cannot conceive why that gentleman should suspect that the " similitudes and dissimilitudes" respectively perceived by myself and my brother, are not altogether in the qualities compared ; unless,

indeed, he mean to make a mere metaphysical distinction, in which case I cannot admit his argument. It appears to me quite sufficient that the resemblance and differences between the colours and sounds mentioned, should be suggested by those colours and sounds, and distinctly perceived. I cannot, therefore, feel the application of the story which Mr Watson has given in illustration. One thing, however, appears to me to be quite certain, that whatever may be the opinions of those clever lawyers, Mr Form, Mr Size, Mr Colour, Mr Weight, and Mr Eventuality, the question, whether Mr Comparison and Mr Wit mutually exercise faculties common to both, is one which must be decided in a court where, though all these may be admitted to plead, Mr Causality must sit alone as judge.

Mr Watson cannot, I think, have given that portion of my letter to Mr Combe, to which he refers in his sixth paragraph, all that attention which I hoped it might claim to deserve. According to my views, a large organ of Comparison will unquestionably have an intense perception of real resemblances; but unless it be regulated by the suggestions of some other organ (in my opinion, the organ called the organ of Wit), the whole reasoning power being defective, not the organ of Comparison, but the individual in whose brain it predominates, will be very apt to *infer* resemblances which have, in fact, no existence. According to my view, a large organ of Comparison standing alone should possess a very vivid perception of a real resemblance, but no power of discriminating between a true and false analogy, exactly as, according to my views, a large organ of Causality standing alone should possess a clear perception of cause and effect, but no power of deciding between two concomitants which is which.

Mr Watson's papers, referred to in his seventh paragraph, shall receive my early attention. I cannot say I feel disposed, with Mr Watson, to refer the laughter which accompanies the exhibition of wit to any excitement of the animal organs. Wit, indeed, like every other intellectual faculty, may be too frequently employed for the gratification of these; and that *hiatus maxime defendendus*, in the face of a philosopher, will naturally, upon such occasions, assume a coarser and less intellectual expression than I should ever expect to trace in Mr Watson's smile. But, with great submission, there is no style of wit which does not, in a greater or less degree, affect the risible muscles of the gravest Heraclitus of us all; and a thousand instances of pure wit might be adduced, of which not a syllable is calculated to gratify any one of the organs of the propensities. That Mr Watson should agree with me that "the organ of Wit is not the only organ by means of which the feeling that accompanies the perception of wit is capable of being excited," would have been a consolation

to me, had it not been my lot to find, at the same moment, that he agreed with me for a *different* reason. However, I am even with him; for although I also can bear testimony to the fact that the organs he mentions, one, some, or all of them, are, generally speaking, more fully developed in the heads of witty men than the organ of Wit, I must also beg leave to express an opinion, that the wittiest men in society are far from being those who possess the most intense perception of wit, or who derive the greatest enjoyment from its exhibition. Grimm, in some part of his correspondence, I remember, states many facts in corroboration of this opinion, which he also held, and expressed by saying, in so many words (I forget the exact expression), "Que l'homme d'esprit et celui qu'il amuse sont deux êtres bien differens." The cause of this is, I think, apparent enough. Another fact which has fallen under my observation I may be allowed to mention, as strongly corroborating Mr Scott's opinion concerning the true office of the organ of Wit. Though the organs which Mr Watson has specified form the prevailing development in successful *advocates*, especially in the outset of their career, there is no instance upon record of a sound and first-rate lawyer who did not possess the organ in question remarkably large. In the portraits of Lord Loughborough and Blackstone, it may be observed very strongly marked, while Causality and Comparison are moderately developed in the latter, and defective in the former. In the late Lord Ellenborough, in Lord Eldon, in Sir William Grant, in the heads of all our most distinguished judges at law and in equity, the same organ appears to be unquestionably the largest in the forehead. But it is obvious that discrimination is the great quality necessary to enable a judge to arrive with facility at a sound legal decision, amid the maze of conflicting arguments addressed to him from the bar.

Should the opinions of Mr Scott eventually issue forth pure from the furnace of public discussion, I shall consider myself a little unfortunate if my proposed term of Assimilativeness should be rejected, on the grounds which appear to Mr Watson to render it "quite inadmissible." It is, indeed, true enough that the term has been, however inaccurately, rather popularly, applied confusedly to express something more than resemblance merely. But I need not send Mr Watson back to his Latin, to convince him that resemblance, merely, is the original and appropriate signification of the word. The popular application of the term, therefore, must have arisen from the resemblance between the particles of those homogeneous substances, into which the food is said to be converted or assimilated. The whole mass of food, however, never is, in fact, assimilated, but in all the various animal and vegetable laboratories, portions only

of the component parts of the nutriment received are separated from their various combinations to form new ones. The food of animals, of course, contains all the ingredients which are found in the chyle, the milk, the blood, and the various secretions; but each of these contains various portions and proportions of some of those ingredients only, and other redundant and useless parts are carried off by evaporation and excretion. The same is the case with plants. The wax, the oil, the honey, the turpentine, which they secrete, are all obtained from the sap which supplies the plant with nourishment; but in no case is there any operation performed, either by plants or animals, which can be accurately expressed by the term assimilate. Of course, until "some definite result be arrived at," the old name must continue; but if phrenologists should at length advance to the conclusion which I have been led to anticipate, I cannot perceive, therefore, that there exists any valid objection to the expression I have suggested.—I remain, Sir, your most obedient Servant,

GEORGE HANCOCK.

P. S.—Holding as I do that Causality possesses no power of comparison, it is evident that I admitted too much in saying that each *intellectual* organ perceives both resemblances and differences within its own sphere. I should wish, therefore, to limit my admission to the *perceptive* organs. There was one or two other trifling inaccuracies in my letter to Mr Combe, which are too obvious to require particular notice.

ARTICLE III.

REMARKS ON A NOTICE OF GEORGE FOX BY W. A. F. BROWNE, at Page 535. of Vol. IX. of the Phrenological Journal

TO THE EDITOR.

RESPECTED FRIEND,

I WAS astonished to see, in an article on Religious Fanaticism, by W. A. F. Browne, in No. 46. of the Phrenological Journal, what I consider an exceedingly injudicious notice of George Fox, whom he calls founder of the Quakers. Such notice in the present day, is, to say the least of it, in bad taste. It had been the practice for a hundred years, or more, in British publications of various character, containing short notices of religious sects, among others even some British Encyclopædias, in a similar manner to traduce the Society of Friends; for such is the undoubted tendency, and there is reason to believe intention, of all such notices. And by copying success-

sively from their seniors what had been written by the enemies of the society, at a time when politico-religious controversy ran high, and the Society of Friends suffered every kind of persecution, from all parties successively, some of them even unto death. Under these circumstances, a phrenologist would say, that the hostile historian could not write the truth. Hence the lying histories that have been transmitted through a series of hostile publications. But there is also a history of George Fox written by his friends, giving a very different account of him. From this the writers in the more respectable publications, Encyclopædias, and other works containing biographic articles, have, during the last thirty years, surely with better judgment, taken their accounts of this extraordinary individual. The following two paragraphs are from W. A. F. Browne's paper.

"There is to be found, in the history of our own country, an instance of an individual who exercised a gigantic moral force over the minds of thousands; whose influence is still felt in the most civilized countries of the world; and who, in many respects, closely resembled my patient. I speak of George Fox, the founder of the Quakers. This celebrated man, at the period of what is technically called his regeneration, was, by the shewing of some of his most distinguished disciples, in every way worthy of a strait jacket. A dose of calomel is a wonderful enemy to inspiration; and had that been timeously administered, a good cobbler would not have been spoiled, and the Society of Friends would never have been heard of. For that Society as at present constituted, as recognising justice and mercy as their cardinal virtues, I entertain perfect respect: these animadversions are directed solely to what may be styled the *hot stage* of the religious fever in which their founder passed the early part of his career.

"Prepared by living in an age of great fanaticism, by solitary musings, and above all, perhaps, by a highly excitable and excited temperament, Fox became so infatuated, that, conceiving himself endowed with supernatural powers, he commanded a withered arm to become as it once had been; he declared that all knowledge and power were conceded to him,—in fact, that he was a proxy of Almighty greatness, but that he 'refrained from exertising it.' And although he confessed that it was inexpedient for him to exercise these gifts, he felt it incumbent to denounce the city of Lichfield, and was much puzzled when no great calamity followed. With what this justly celebrated innovator became when this morbid fervour subsided, we have nothing further to do than to remark that *he* recovered, which my patient has not."

W. A. F. Browne pretends to copy from George Fox's most

distinguished disciples, and refers to a paper by William Howitt, as his authority; but on turning to that paper, we find that he has travelled from the record. Has he not copied from the lying chronicles above alluded to? W. Browne's notice is more than an unwarrantable exaggeration of what is unnecessarily admitted by W. Howitt, who writes in reprobation of the uncharitable opinions regarding George Fox, entertained not by his most distinguished friends, but by his enemies, including a host of interested professing Christians of after times, also enemies of his particular religious opinions, held by his followers. Is W. Browne a Christian? If not, he has no right to set Christians against one another. If he is, he deserves the dis-esteem of all his brethren, for the irreverent use he makes of the terms regeneration and inspiration, terms that, rightly applied, must be recognised as legitimate by every serious believer in the Bible; which words are gratuitously introduced by W. Browne, as they happen not to occur in W. Howitt's paper. W. Browne must be exceedingly ignorant of English church history, or he would not speak of regeneration as a technical term amongst Quakers. The Friends are not the sect who are in the practice of speaking of a certain period of regeneration. Indeed, I am able to say, without fear of contradiction, that of all sects they are least to blame for an improper use of Scripture terms. W. Browne says, that George Fox was in every way worthy of a strait jacket. That must be considered a wonderful discovery, a hundred and fifty years after a man's death, seeing that he was not subjected to it by his cotemporaries, many of whom no doubt were nothing loth, as he had certainly abundance of enemies in his own day, and many times was literally in their hands. This sentiment, we may remark, lessens our confidence of the humane treatment of the insane at Montrose. But W. Browne himself seems to have some misgiving regarding the application of his coercive means to George Fox; for he finishes this paragraph, by limiting his animadversions to the early part of his career, it would seem in total ignorance of the fact, that George Fox kept by his principles to the end of a life of ordinary length, and of extraordinary exertion in what he considered the work of the ministry. W. Browne's coarse remark of George Fox becoming the leader of a new sect, to the spoiling of a good cobbler, savours of some more polluted source from which he derived his information, than he has chosen to admit. Is this honest?

The Christian religion of the present day in this country is essentially the religion of the Bible, which it cannot with propriety be said was the case in the days of George Fox, with exception of himself, his followers, and it may be a few others. Previous to that time, Christianity, as it was called, was a com-

pound of the doctrines of Christ, with Pagan, Jewish, and other observances, the cunning and interested devices of men. The object of the Reformation was to strip it of all but the first. The different sects among Protestants have from that period to the present, succeeded more or less in approximating themselves to the state of Christians in the days of the Apostles; the Society of Friends all the while being immensely in advance of every other sect. And the most remarkable feature in the character of George Fox is, that he was able to set aside the rubbish of ages, and to take a clearer view of the true nature and tendencies of the Christian religion, than the advocate of any other sect has yet been able to attain to; notwithstanding that several of his projects for the amelioration and improvement of man, taken up originally it was thought in blind zeal, are now discovered by others to be grounded on an enlightened as well as a Christian policy.

I consider it unfortunate that the Phrenological Journal has been the vehicle for this obnoxious notice of George Fox. I have long thought that Phrenology was calculated, by making manifest to demonstration the causes that give rise and support to religious differences, to be instrumental in putting an end to them—an object which should not be put to hazard by a miserable attempt to give point to the history of a deplorable female lunatic, the points of resemblance, too, so questionable, as utterly to overthrow all confidence in W. Browne's ability to discriminate in matters of this sort.

The Society of Friends, though strong in the belief of the correctness of their religious principles, are yet comparatively weak in numbers,—unassuming and inoffensive in their manners,—and often bear with, rather than resist, injurious treatment of every description. This, which no doubt shields them from the greater severity of noble minded adversaries, has yet occasionally rendered them obnoxious to the attacks of dastardly and interested persons, who have been more severe and covert in proportion as their own principles were not calculated to bear examination.

I am firmly of opinion that the science of Phrenology is the true philosophy of mind, and that it is in full accordance with the religion of the Bible, which is decidedly the religion of this country; only, however, in a progressive course of being clearly understood;—that the Bible itself, as, indeed, every well written book, is strictly phrenological;—that the Christian religion is decidedly so, and most particularly its higher principles;—that regarding these nearly all sects approximate in opinion;—that this fact is deserving of a more serious consideration than has hitherto been paid to it, calculated as it is to lessen the differences amongst all Christians;—that the Friends

give to the higher principles of the Christian religion, an attention and importance not easily arrived at by other sects, whose attention is dissipated on points by the Friends considered dispensable, and admitted by all to be of minor importance;—that this is the distinguishing feature of the practice and principles of the Friends, and which they have maintained since the time of George Fox.

GLASGOW, January 1836.

JOHN MAXWELL, M. D.

[Thinking it desirable that Mr Browne's reply should appear at the same time with the preceding communication, we requested him to furnish a vindication of his statements; which he has accordingly done in the following terms.—ED.]

TO THE EDITOR OF THE PHRENOLOGICAL JOURNAL.

MR EDITOR,

I have replied to your correspondent with reluctance: first, because he has evidently misunderstood the object of the article which he has attempted to denounce; and, secondly, because he as evidently writes under the influence of the lower propensities, the predominance of which, I need not tell you, is altogether inimical to philosophical inquiry, places a good cause in jeopardy, and renders that which might be matter for mutual instruction the source of contention and quarrel. But as the character of your Journal for accuracy is at stake, I have resolved, forgetting and forgiving the implied accusation of "dishonesty," "inhumanity," "want of Christianity," &c. to make the following observations.

The object of the writer is to vindicate the character of George Fox from the charges of cerebral excitement and fanaticism contained in the passages which he has quoted. To effect this vindication, he conceives it necessary to accuse me, first, of misinterpretation of my authority; secondly, of exaggeration of the said authority; and thirdly, of ignorance of the opinions of Quakers as to regeneration. My views as to the state of mind in which George Fox passed the earlier part of what may, without offence, be called his public career, were derived from the following authors.

Mosheim describes Fox as "of a dark and melancholy complexion, and of a visionary and enthusiastic turn of mind. About the year 1647, which was the twenty-third year of his age, he began to stroll through several counties of England, giving himself out for a person *divinely inspired*, and exhort-

ing the people to attend to the voice of the *divine word* that lies hid in the hearts of all men,*" &c.

In the paragraphs immediately following, the first disciples of Fox are designated "bacchanals," "fanatics," &c. and in the notes, the whole question of Fox's deportment is discussed. One of these concludes thus: "It is remarkable that the very learned Dr Henry More, who was himself not without a strong tincture of enthusiasm, and who looked upon Penn as a pious Christian, treated nevertheless George Fox as a melancholy fanatic, and one possessed with the devil. See his *Mysteries of Godliness*," &c.

Hume says in reference to this subject—"He, Fox, frequently wandered into the woods and passed whole days in hollow trees without company, or any other amusement than his Bible. Having reached that pitch of perfection as to need no other book, he soon advanced to another state of spiritual progress, and began to pay less regard even to that divine composition itself. His own breast he imagined was full of the same inspiration which had guided the prophets and apostles themselves, and by this inward light must every spiritual obscurity be cleared, by this living spirit must the dead letter be animated,"†

He afterwards mentions, "that the violent enthusiasm of this sect, like all high passions, being too strong for the weak nerves to sustain, threw the preachers into convulsions, and shakings, and distortions of their limbs;" "that from their breaking into churches, disturbing public worship, &c. they were sometimes thrown into madhouses, sometimes into prisons, sometimes whipped, sometimes pilloried. The patience and fortitude with which they suffered, begat compassion, admiration, esteem," &c.

Lingard, in commencing a narrative of the revolting extravagances of James Naylor, speaks thus of Fox: "The noise, the revelry which he witnessed (at a fair) led him to thoughts of seriousness and self-reproach; and the enthusiast heard, or thought that he heard, an inward voice calling on him to forsake his parents' house, and to make himself a stranger in his own country."‡

When reflecting on the subject, these authorities appeared to me sufficient to justify the opinion that Fox was at first an enthusiast. But I was aware that it might be objected, that each of them was prejudiced, though from widely different causes, against Fox, his followers, and their principles. I knew

* Vol. ii. p. 269, Blaikie's Edition.

† Chap. lxii. p. 674, Dinna's Edition.

‡ Lingard's Hist. of England, vol. xi. p. 245.

that it might be urged that the first was a churchman, the second a sceptic, the third a Catholic. Accordingly, in *writing* on the subject, I preferred quoting the most recent and the most unexceptionable authority, that of a Quaker. I concluded that by him Fox's character would be placed in the most favourable aspect; and that I might implicitly trust his statements respecting the points now under consideration. I quote the passage from Howitt to which allusion is made in my paper, and which confirmed me in the view which Mosheim, Hume, and Lingard had suggested:—

"Now, I do not mean to assert that George Fox was free from the fanaticism of his age, or the eccentricities of a sanguine temperament, acted upon by the thousand excitements of one of the most stirring and remarkable periods of English history; far from it, he had his share of them: but these did not constitute his real character, they merely marked it. If we regard him only as a man riding on a white horse, and dressed in a suit of leather; if we fix our attention only on the facts of his having commanded a man at York to stretch forth a withered arm, and supposing that he had actually restored it; if we hear him declaring that a knowledge was given him of the medical qualities of all physical substances, and that he could cure all diseases, but did not feel himself called to it; or see him running with bare feet through the city of Lichfield, crying, "Wo to the bloody city of Lichfield!" and afterwards, when the wo did not arrive, wondering for what cause he should have been thus sent, and why the wo was denounced, and turning to the history of the place, and finding, as he might have found in others, *that some Christians had once been slain there*;—if, I say, we regard him only under these aspects, then he will appear ludicrous and fanatical enough. But these were not the bulk of his actions, nor illustrative of the main features of his mind. They were merely the spots on the sun, the foils and exceptions—the occasional extravagances of a great man under excessive excitement." *

Whether, in concluding from these facts, which your correspondent says are "unnecessarily admitted by W. Howitt," that George Fox was in a state of mental excitement, requiring medical treatment, I have either misrepresented or exaggerated the statements of my authorities, or done aught that was not warranted by strict justice and fair induction, I shall leave to you and the public to determine.

As to the charge that I have erroneously affirmed that Quakers use the word "regeneration" as a *technical term*, it is of minor importance. I did not, however, intend, nor am I of

opinion that my words are calculated, to convey the idea that regeneration is either solely or generally employed by them. My object was to affirm that it, in common with "inspiration," is a *technical term* used by fanatics to designate a period of excitement. When the term is rightly, that is, scripturally applied, either by Quakers or by others, I understand its import, and reverence the nature of the state which it represents. When it, or any other word, however, is used to signify a mere corporeal condition, which can be excited and removed by external agents, I must continue to expose and condemn such misapplication.

Your correspondent, Mr Editor, has adduced no proof whatever that my opinion as to the deportment of George Fox is erroneous. Until he does so, I shall continue to entertain that opinion. But notwithstanding my belief that George Fox, for a certain period of his life, was in a state of as great excitement as the lunatic with whom he is contrasted—notwithstanding my conviction that some of his immediate proselytes, *ex. gr.* James Naylor and William Simpson, were maniacs—notwithstanding the strikingly intemperate tone of your correspondent—for that society of which he is a member, (I copy part of the essay upon which he has commented,) as at present constituted, as recognising justice and mercy as their cardinal virtues, I entertain perfect respect. And remain, your obedient servant,

W. A. F. BROWNE.

MONTROSE, February 15. 1836.

[It seems perfectly evident, that if Mr Browne fell into error respecting George Fox, he erred involuntarily, and with the sanction of eminent authorities. Even supposing him to have erred, therefore, (which, however, most of our readers will probably agree with us in thinking by no means apparent,) it may be questioned whether the style of Dr Maxwell's communication is altogether unexceptionable, and such as ought to characterize a philosophical and religious discussion. We honour the zeal with which he defends what appears to him to be truth; but must at the same time be permitted to express the opinion, that, in ascribing base and interested motives to those who, in the exercise of the common right of private judgment, have arrived at different conclusions, he has departed unnecessarily from the proper subject under review.—ED.]

ARTICLE IV.

REPLY TO AN OBJECTION TO PHRENOLOGY FOUNDED ON A COMPARISON OF THE BRAINS OF ANIMALS OF DIFFERENT SPECIES; AND TO THE ALLEGATION THAT CERTAIN ANIMALS ARE ALTOGETHER DESTITUTE OF BRAIN. By CHARLES CALDWELL, M. D. Professor of the Institutes of Medicine and Clinical Practice in Transylvania University.

IN a late number of *The Christian Examiner*, Phrenology has been assailed by a reverend gentleman, who, among other objections which we have fully answered elsewhere,* brings forward one that is frequently urged, and therefore deserves to be considered in detail.

"But, above all," says he, "if it be true, as phrenologists assert, that this dependence of mind on brain holds through all the orders of animated nature, why is not the brain in the lower tribes always proportioned to the amount of mind manifested by them? It requires but a cursory observation to perceive that this is far from being the case. Not to insist on the example of vertebrated animals, in several of whom the proportion of the brain to the rest of the body is larger than in man; what are we to say of the astounding manifestation of mind displayed by the insect world; exemplified, not only in the wonderful contrivances of the bee, the spider, and the common ant, but in actions more wonderful still, as having no immediate reference to the necessities of life, and as bearing the nearest brute resemblance to the peculiar manifestations of human beings? Such are the wars of conquest carried on by different nations of the termites, in which the vanquished become the captives and slaves of the victors, and are subjected by them to all kinds of servile labour. Now in these animals, the brain (if there be any) is not only small, absolutely and relatively, but its very existence is exceedingly problematical. Many physiologists, with Linnaeus at their head, have denied it." (No. 65, p. 260.)

Before proceeding to a particular examination of this flourish, which rests entirely on a false foundation, we shall make a few remarks on the latter clause of it. That Linnaeus has denied a brain to insects generally is true. But it is equally true, that his denial has not verified itself, by taking brain from them. And, in the very sentence which contains the denial, he has himself virtually *contradicted* and nullified it. The following are his words.

"INSECTS—Spiracles, lateral pores; jaws, lateral; organs of

* See *Phrenology Vindicated*, &c. Lexington, Ky. 1835.

sense, tongue, eyes, antennæ on the head; brain *none*; ears, *none*; nostrils, *none*." See "GENERAL SYSTEM OF NATURE."

This sentence, we say, virtually contradicts and invalidates itself, by granting to insects the external senses, and denying them the organ which constitutes the *actual seat* or *centre* of those senses. For that their seat is in the *brain* and not in the *nerves*, or the external organs, is susceptible of proof. In the function of sensation, whatever be its kind, the nerves are but instruments *subservient* to the brain, the latter being the ruling organ, in which the sensitive power immediately resides, and in which the functional action is consummated. It is at once the centre of sensation, and the source of the will. In saying that insects have no brain, Linnæus could not have meant that they have *nothing tantamount to one*. He must have known that they possess a central mass of cerebral matter performing the office of a brain, to which, as just mentioned, the nerves of sense are but ministering appendages. Or if he was unapprized of this, his stock of anatomical and physiological knowledge was more limited than we have thought it, though we have always been aware that it was not great, his attention having been engrossed by other pursuits. He also denies to insects "ears" and "nostrils." By this, however, he could not have meant that they can neither *hear* nor *smell*; for many of them are exceedingly acute in both functions. And functions universally indicate *appropriate organs*, and never exist without them. His meaning, therefore, must have been, that they are destitute of organs *technically* called ears and nostrils *from their forms and situations*. Respecting the brain, the same, we think, must have been true. He could have intended no more, in the expression used, than that insects have nothing which, from its *figure* and *location*, can be called, in *technical language*, a brain. A brain of some sort is just as indispensable to a nerve of sense, to render it efficient, as the nerve itself is to the *organ* of sense. A brain, we mean, is as necessary to give efficiency to the *optic* and the *auditory* nerves, as *they* are to give efficiency to the eye and the ear. And a tongue and a nose can taste and smell as well without gustatory and olfactory nerves, as they can without a mass of cerebral matter constituting a brain, or forming a substitute for it. An animal of any description possessing five external senses and no brain, would be as great an anomaly as a human being alive, and performing all the functions of life, without a head. External senses indicate a brain as certainly as a stream of water indicates a fountain, or a beam of light a luminous body. All this, we think, Linnæus must have known. Be that, however, as it may, we shall shew presently, under the sanction of anatomical and physiological authority much weightier than his, that in-

sects *do* possess a brain. But to return from this digression, if such it be.

The foregoing high-wrought flourish of our author, we say, rests on the allegation that phrenologists contend that the "amount of mind manifested" by man and other animals, is always proportioned to the quantity of brain possessed by them. Than this representation nothing can be more untrue; nor can any thing more fully expose the want of knowledge; or the want of candour, or both, in its authors and propagators. Phrenologists have never, as their writings evince, contended for the notion here ascribed to them; but the *reverse*. They expressly deny that the abstract bulk of brain is necessarily the measure of the amount of mind displayed by its possessor. Better still; they prove it not to be so; for they do not, like our author and his antiphrenological associates, allow their positions to rest on mere arbitrary assertion. They back their assertions by facts and arguments not to be overthrown. Their doctrine in the present case is, *that, all other things being equal, the larger the brain, the stronger are the manifestations in which it is concerned*. And this is as true and as plain, as that *the whole is greater than a part*. In fact it is substantially the same axiom expressed in different words, and in reference to a different subject. No physiologist can deny it but at the hazard of his reputation, or rather with the *loss* of it so far as a *palpable error* may affect it, and that error of such a nature as nothing but *ignorance of his calling* could make him commit; nor can *any one* deny it, but in defiance of common sense. This simple contradiction is the only reply to which the writer's objection is entitled. Respect, however, to the subject and the reader induces us to subjoin a few further remarks bearing somewhat of an analytical character.

The writer alleges truly, that in several sorts of "vertebrated animals, the proportion of the brain to the rest of the body is larger than in man." But what of that? Have not phrenologists said the same? Have they not even taken the lead in overthrowing the opposite doctrine inculcated on this point by other physiologists? Certainly they have.* Have they, on the contrary, ever contended, that the superiority of man's intellect arises from the superior proportional size of his brain to that of the rest of his body? Never. They were also the chief subverters of error on that topic. All they have contended for on the subject is, that, other things being alike, the larger the *intellectual organs* are, whether in man or in the inferior animals, the stronger is the intellect. And, as far as suitable investigations have been carried, that position is susceptible of

* See Gall *Sur les Fonctions du Cerveau*, ii. 284; and Spurzheim's *Phrenology*, 3d edit. p. 85.

proof, and has already received it. No matter how large the animal organs of the brain are. They confer no intellect; because they are designed for a different purpose. They are the seat of animal appetency, and furnish therefore no knowledge themselves, but the mere impulse to some sorts of action, subservient as well to the acquisition of knowledge as to its application. They are, in fact, but the breeze that urges the vessel onward; the compass, chart, and rudder being furnished by the intellectual and moral organs. The difference between the human brain and that of the inferior animals consists in the presence or absence, and the difference in size, of the several classes of organs, and perhaps also in their temperament and tone. In the former, the *intellectual*, more especially the *reflective* organs, and the *moral* ones, are comparatively large; whereas in the latter they are small, or entirely wanting. Hence man is a moral being, while the animals beneath him are not; and hence also his superiority in other high modes of mental manifestation. Let the moral and reflecting organs be removed from the brain of man, and what remains will be an *animal* brain, and he will be nothing but an *animal in action*. His morality and reflection will be extinct. Were the whole brain of an ox made as large as all the rest of his body, its intellectual organs retaining their present size, he would derive from the augmentation no increase of intellectual power. Of man the same may be affirmed. Were his brain tenfold its present size in its animal compartment, the intellectual and moral continuing as they are, the change would only convert him into a greater and grosser animal. His intellectual and moral faculties, receiving no increase of power, would be swallowed up, or held at least in deeper subjection, by his inordinately augmented animal ones. These are facts which should be remembered and acted on, by those who aim at *practical craniology*. The mistakes made on that score, by *ignorant pretenders*, are among the most productive sources of mischief to the science. On this topic we shall offer two remarks. We have never seen a skilful craniologist officiously forward in displaying his skill, and very rarely an individual with a head *worthy of examination*, importunate to have it examined. In a special manner, we have never known an *advertising* craniologist, who was not a *charlatan*. Our country is threatened with a brood of phrenological Peripatetics, that promise to rank with Steam Doctors in medicine, and Pedlars in traffic.

The vertebrated animals, then, to which our author refers as possessing large brains, derive from that cause no increase of intellectual vigour. The reason is plain. The animal compartment only of their brain is large, the intellectual compartment being diminutive, or partially wanting. These are some

of the truisms of Phrenology, familiar to every one who has any correct acquaintance with it. If they are new to the writer, his *ignorance* is the cause. And in *him* such ignorance is culpable. He has made it a ground of misleading others. Yet he might have easily removed it, by consulting the works of phrenological writers. And he should have done so, before becoming himself a *writer* on the science.

Nor will his appeal to insects and reptiles avail him in his difficulties. Far from it. It has only confounded and entangled him the more, and rendered his condition the more hopeless. What does *he* know about the anatomy or the functions of bees, spiders, common ants, and termites? Just as much as he knows about the size and colour of his own mind—and *no more*. His ignorance *here* is, if possible, more striking than in relation to most other points; and its culpability is aggravated by the perfect ease with which it might be removed. To say nothing of the mistakes he is constantly committing, his narrow-mindedness and illiberal feelings are proof conclusive that he is *no naturalist*. A correct knowledge of nature never fails to liberalize the mind, and improve in it the love of truth. But that such is not the condition of our author's mind, has been elsewhere shewn. Does he *know* that there is not, in the insects he has mentioned, a perfect correspondence between cerebral development and mental manifestations? No, he does not; nor, rash and reckless as he is in his deviations from truth, will he deny our assertion. *He knows nothing of the matter*. And, unfortunately for him, some of the writers to whom he refers, and on whose statements he confidently relies, were not much better informed on the subject than himself. This is especially true of Linnæus, to whom he looks as his Magnus Apollo, neglecting the works of later and better informed writers easily accessible to him. That illustrious man was far from being distinguished as an anatomist or physiologist. Nor did he pretend to such distinction. His knowledge and fame were derived from a different quarter. It is well known that his attainments in those branches of science were but limited, even in his own day.

With the subject on which he has undertaken to instruct others, the reverend gentleman is too little acquainted to comprehend the plain fact, that brain is brain, whatever shape it may bear, by whatever name it may be known, or in whatever part of the body it may be situated, whether the head, the thorax, or the abdomen; and that therefore a ganglion, in inferior animals, may be to them precisely what a brain properly so called is to those of a higher order. Nor does he know, we presume, that, even in man, the brain is regarded by many anatomists as nothing but an aggregation of ganglions, each

ganglion constituting a distinct organ, differing in its functions from every other. According to this view of the matter, the moral organs are moral ganglions, the intellectual organs intellectual ganglions, and the animal organs animal ganglions. The name produces no effect on the function of the organ, any more than its situation.

On another point vitally important in the present discussion, he is equally ignorant; namely, that, as relates to power, in all forms of living organized matter, superior intensity is an efficient substitute for a want of extensity—in language perhaps more easily understood, that an elevation of tone and temperament in an organ makes amends for a want of size in it. Abundant evidence in favour of this could be adduced, were it necessary to dwell on it, and had we leisure to do so. It is as susceptible of proof as any other tenet in physiology. Let us apply it to the insect tribe, and see whether it will not do something toward the removal of our author's objection, and the explanation of the mental phenomena manifested by that order of beings.

The muscular power of insects, in proportion to their size, is astonishing. Nor is this more strikingly true of any of them than of common ants and termites. One of the former is known to be able to move with ease and rapidity, under a burden of many times its own weight. Nor is this less the case, we believe, with regard to the labouring class of the latter. But, according to the most approved views now entertained on the subject, muscular strength disproportioned to size arises from one of two causes, or from both united—muscles very firmly knit and organized; or muscles rendered highly vivid and intense by an inordinate supply of cerebral influence; or, better still, we say, from the union of both. That there exists brain, moreover, wherever voluntary muscular motion connected with design exists, nobody of intelligence doubts. The position is received as a physiological axiom. That our author doubts it, or cavils at it, therefore, is but a farther mark of his ignorance or perversity, or both. He might as well deny the necessity of cerebral matter to the attribute of sensibility. It is well known that the insect tribe see, hear, taste, smell, and feel, many of them very acutely. This is strikingly true of the bee, the ant, the termites, and also of the spider, which, in some respects, has the character of an insect. But, that in all animals whose anatomy is understood, the senses are nervous and cerebral functions, is universally admitted. Apart, then, from the discoveries made by entomological anatomists, we are justified in inferring, with entire positiveness, that insects also are indebted for their senses and power of voluntary motion, to cerebral substance. As matter of opinion, to deny or controvert

this is absurd; none but a perfect ignoramus in anatomy and physiology will do it; and, as matter of fact, Cuvier, as already intimated, whose authority our author will not call in question, puts it out of dispute. His words are as follows:—"Le système nerveux de la pluspart des insectes, est généralement composé d'un *cerveau* formé de deux *ganglions* opposés, réunis par leur bases, donnant huit paires des nerfs et deux nerfs solitaires, et de douze ganglions, tous inférieures." See "*Règne Animal*," tome iv. pp. 293-4. Nor is it from Cuvier alone that we derive this knowledge. To every thorough-bred entomologist of the day it is as familiar as household words. Kirby and Spence, whose works are in hundreds of libraries in our country, have diffused it very amply. Is it not amazing, then, that our author should so expose his ignorance, touching information which even courts his acceptance?—No; it is not amazing—it is but in character with the conduct of all such *pretenders* to science as he is.

To this scheme of cerebral anatomy, common to a large class of the insect tribe, neither the bee, the ant, nor the termite is an exception. The spider also has a ganglionic brain. In fact, vision without light, hearing without sound, or smelling without odorous matter, would not be a greater anomaly, than the existence and exercise of any sense, or of any form of voluntary muscular motion, without a brain.—To return.

In ants and termites, we say, there exists surprising muscular strength, in proportion to size, in consequence of high muscular intensity; that intensity being derived in part from the *inordinate motive energy of the brain and nerves*. Why, then, may not the same be true of other cerebral functions? Why may not *they* also be inordinately powerful, on account of inordinate cerebral intensity? We might vary the question, and ask, Is it not *altogether probable that they are so*? We usually find a congenialness pervading all parts of the same animal—intensity and energy in one organ, and its functions associated with the same qualities in others. Whenever, then, we discover, in an animal, great power in proportion to size, in one form of cerebral matter, we are authorized, if not compelled, to infer the same in relation to others. Spiders are also exceedingly vigorous in proportion to their size, a fact denoting in them high cerebral and muscular intensity. So are bees; else, slender as their wing-muscles are, they could not bear their cumbrous bodies and burdens through the air, to great distances, and rise with them to the tops of lofty trees, as they are known to do. It is a fair inference, then, that a similar intensity in the intellectual organs of those insects may bestow on them a corresponding degree of sagacity and art. By "intensity" here, we mean nearly the same that we would by the words *high temper*.

34

permanent, or *compactness*, which is not confined to a part of the body, but pervades the whole of it. This view of the subject is intended for *fair-minded* and *reasoning men*. From them it will receive a candid consideration. From our author we know it will not. Nor will his treatment of it be a matter of any concern to us.

With the anatomy, especially the minute anatomy of insects, our acquaintance, as yet, is very limited. As far, however, as investigations on the subject have been carried, it clearly appears, that, like all other kinds of living matter, the different species of that tribe of animated nature act in accordance with their form and organization. They have organs fitted specifically for the performance of their functions. Nor is this more strikingly true of any sort of insects, than of the termites. That family, in the first place, differs not a little from every other known one, in figure, habits, and general policy. But this is not all. The family consists of three classes, *breeders*, *labourers*, and *warriors*, each class differing widely from the other two. The warriors will not and cannot labour, the labourers cannot breed, nor can the breeders either fight or labour. Why? Because each class, as far as it has been examined, is organized *exclusively* for its own mode of life and action. The warriors have shields and armour, the labourers instruments to work with, and the breeders are supplied with generative organs. Of the peculiar cerebral aptitudes of these animals, but very little is known. As the cerebral developments, however, of all other animals that have been sufficiently examined, have been uniformly found to correspond with their structure, propensities, and modes of life, it is reasonable to conclude, until the contrary shall have been made appear, that the same is true with regard to the termites. Indeed, under the present economy of things, it would hardly be extravagant to pronounce it *impossible* for the case to be otherwise. We every where find organization as perfectly adapted to function, as luminous bodies are to give light, or as any other causes are adapted to their effects.

We wish it to be understood, that we are now writing *extra scholam*, and therefore on our own responsibility. Phrenology, which deals only in *facts*, does not yet *expressly* sanction us in the views we have given; though we think *reason* does; and we doubt not that Phrenology *will* hereafter. For any mistakes we may have committed, then, the science is not answerable. They are our own; and we acknowledge and assume them, with all their consequences. Supposing them to exist, they are certainly less glaring than those into which our author has plunged on the same subject. By denying brain to termites, ants, bees, and spiders, and abstracting their *minds entirely* from their

matter, he makes them *more spiritual* than man himself, some of whose mental faculties he acknowledges to be, in some degree, referable to his cerebral organization. To insects, therefore, he awards the *superiority*; mind or spirit being superior to matter. His views on this subject, fairly carried out, would lead to very singular and ludicrous consequences. But we forbear to trace them.

To take leave of this subject, on which we have perhaps bestowed already too much time. Phrenology has been pushed to some extent among the animals inferior to man, but has not yet, as far as we are informed, been applied with much effect to the exposition of the propensities and other mental qualities of the insect race. On whatever classes, however, it has been brought fairly to bear, it has been found as true in relation to them as to the human race. This appears clearly from the superb work of Dr Vimont on Comparative Phrenology, one of the most interesting productions of the age. Nor are we inclined to doubt that it will be found hereafter as applicable to insects and reptiles, as to the higher orders of animated nature. Indeed, under the present organization and endowment of the animal kingdom, we deem it, as already mentioned, scarcely possible for the case to be otherwise. In those humbler ranks of being, muscles, joints, stomachs, teeth, claws, and respiratory and generative organs, serve the same purposes as in the more elevated. Each apparatus, moreover, is fitted precisely to the form, character, and mode of life of the animal possessing it. And, in the progress of our knowledge of nature, the same will, no doubt, be discovered to be true of the brain. In each species and variety of the insect and reptile tribes, where that organ exists at all, its special aptitude to the modes of subsistence and action of the beings endowed with it, will be found to be complete. But we repeat that, in making these remarks, we are not, perhaps, fully backed by what Phrenology has yet done. Our errors, therefore, should we fall into any, are not to be charged to the discredit of the science. They are to be treated as our own. Nor is there any fairness in attempting to derive objections against Phrenology from the mental phenomena of the insect races, except so far as the science may have spoken of them. Has it committed any mistakes respecting them? If so, let them be cited and exposed, and, as far as they may avail, they will weaken its claim to *entire* credibility—they will show, at least, that it is not yet perfect. But it is unjust to ransack, for objections to it, a department of nature into which its researches have not yet been carried. Its basis is *observation*; and that has not yet been pushed into every department of the animal kingdom. It will be soon enough to test the truth of Phrenology by the lower orders of

animals, when it shall have included them in its researches. To attempt this at present is *premature*, and comports perfectly with the *uniform injustice* the science has sustained from the measures of its opponents. On this ground, therefore, we might, without being chargeable with shrinking from the contest, have declined replying to our author's objections drawn from the mental phenomena of insects. Phrenology is answerable only for what it *has* done, or *attempted* to do, not for what it has *not* done or attempted. The gentleman's remarks on insects and spiders, therefore, which he has made and bruited with such an air of triumph, and seems to think so withering to our science, are out of joint and quite *innocent*—certainly they injure nothing but his own reputation and that of his philosophy.

ARTICLE V.

ADDRESS BY THE EDINBURGH SOCIETY FOR AIDING IN THE GENERAL DIFFUSION OF SCIENCE.

IN 1832, an Association, consisting chiefly of persons engaged in trade and manufactures, was formed in Edinburgh, for the purpose of procuring lectures, at convenient hours, on various branches of useful and entertaining knowledge, and particularly on the natural sciences. The objects aimed at by that association (which is now termed the Edinburgh Philosophical Association), were, that the lectures should be delivered in the evening after business hours; that they should be accessible to females; and that, by procuring a large attendance, admission should be afforded to individuals at a very moderate price.

A fundamental principle hitherto acted on by the Philosophical Association has been, that the entire management of its affairs should be vested in directors chosen from among the members, and consequently belonging to that class of the people for whose benefit the lectures are instituted. The great advantage of this arrangement is the superior success with which both the subjects and the lectures can be selected and varied to suit the wants of the auditors. Each of the directors having the means of ascertaining, by extensive communication with his own circle of acquaintances, both the effect produced by the respective lecturers, and the degree of interest excited by the subject, they, guided by the information thus obtained, select, annually, in October, such branches of science as they have been led to think may prove useful and attractive, and they engage such lecturers as are supposed to be capable of conveying in-

struction most successfully. In 1832-3, the following subjects were treated of by the lecturers whose names are annexed :—

CHEMISTRY—Dr Murray.
PHRENOLOGY—Mr Combe.

GEOLOGY—Dr Murray.
BOTANY—Dr Drummond.

In 1833-4 :—

NATURAL PHILOSOPHY—Mr George Lees, A. M.
ASTRONOMY—Rev. Thomas Gray.
PHYSIOLOGY and ZOOLOGY—Mr W. A. F. Browne, Surgeon.

In 1834-5 :—

PHRENOLOGY—Mr Combe.
LAWS OF THE ANIMAL ECONOMY—Dr Allen Thomson.

In 1835-6 :—

CHEMISTRY—Dr Fyfe.
ASTRONOMY and GEOLOGY—Rev. J. P. Nichol.
MORAL PHILOSOPHY—Mr Combe.

So completely have the results borne out the excellence of the leading principle above mentioned, that, during last winter, in consequence of the increased attendance, the lectures were delivered in the largest Waterloo Room, to an audience of upwards of six hundred individuals of both sexes.

The directors of the Philosophical Association have published several able and instructive addresses, which have been widely circulated ; and the newspaper press has extensively reported their proceedings. The inspiring example and success of that Association, combined with a general desire in the public mind for information, have naturally led to the institution of a number of provincial associations, essentially similar to that of Edinburgh in their constituent elements and objects, and from which numerous applications have been received by the lecturers and others connected with it for advice and assistance in the general direction of their efforts, and especially in procuring through them the services of able and qualified lecturers. Unfortunately, however, from the very limited means possessed by individuals of making known their wants and enlisting others in the cause, few of these applications have been entirely successful ; for although it is believed that many young men may be found who possess the talents and information necessary to enable them to lecture with success, yet, from there having hitherto been no general demand for such talent, very few individuals have adopted lecturing to popular audiences as a profession.

At the same time, it is certain that an extensive demand for instructors of this kind has arisen, and there is every reason to believe that it will be permanent, and increase. The good which may be accomplished by means of scientific lectures delivered to popular audiences in a luminous style, with the requisite illustrations, is incalculable ; and any means which can

be adopted to advance it, must contribute to the ultimate advantage of the nation.

Impressed with the importance of facilitating in every possible way the attainment of the objects which these associations have in view, and believing that a central society to serve as a medium of communication between them and lecturers would be eminently useful for this purpose, a number of gentlemen of Edinburgh, many of them connected with the business of public instruction, have formed themselves into a society for the purpose of aiding provincial associations in procuring qualified lecturers; and they now announce their object and rules of action to the public.

Approving of the principle which has hitherto been acted on by the Edinburgh Philosophical Association—that the demand for instruction, as well as the arrangements for obtaining it, should emanate from the people themselves—they have resolved that “they shall not send forth teachers or lecturers, nor publish books or tracts, nor provide apparatus, on their own account, or at their own expense; but that their object shall be limited to aiding local associations by advice and influence in procuring lecturers, books, and apparatus,” and in selecting useful and interesting subjects for the lectures.

The plan of their proceedings is the following:—

They invite provincial associations which may be desirous of obtaining their assistance, to communicate to them through their secretary the following information.

1. The name of the Association, with the names and addresses of the office-bearers.

2. The number of members of whom the Association consists.

3. The accommodation, in the form of lecture-rooms and apparatus, which they possess, or can command.

4. The subjects, and the particular days and hours, for which they wish to procure lecturers.

5. The remuneration which they can afford to pay to lecturers for their services, with any other particulars which may affect the terms of an arrangement; especially any circumstances likely to affect in a peculiar manner a lecturer's expenses in travelling to and residing in the locality of the Association.

They likewise invite persons willing to become lecturers to inform them regarding the subjects they may be prepared to undertake, and such other particulars as may facilitate arrangements with the parties interested.

The society will meet on the first Monday of every month, or oftener, if required, and will use means to make the demands communicated to them known to the class of persons who may feel an interest in supplying them. As some of the members have had experience in public teaching, the society will be glad

to communicate the results of the experience of those members both to associations and to candidates for employment as lecturers. They will also use every means in their power to ascertain the qualifications of lecturers before recommending them. In short, the society will endeavour to form a medium of communication between the parties who want instruction, and those who may be willing to impart it. The labours of this association shall be entirely gratuitous. They will confine their exertions strictly to the sphere of useful and entertaining science, and to the duty of bringing provincial associations into communication with properly qualified teachers, for the advantage and accommodation of both parties. They will at all times be ready, moreover, to offer such advice in regard to the subjects and modes of instruction as their own experience shall enable them to suggest.

The office-bearers elected at the first meeting, held on 21st December 1835, are—

William Murray, Esq. of Henderland,	. . .	<i>President.</i>
John Robison, Esq. Sec. R. S. Ed.	}	. . . <i>Vice-Presidents.</i>
George Combe, Esq.		
Sir George S. Mackenzie, Bart.	}	. . . <i>Council.</i>
Sir Henry Jardine.		
Patrick Neill, Esq. LL. D., F.R.S.E., &c.		
Dr D. B. Reid, Lecturer on Chemistry,		
Dr W. Gregory, Lecturer on Chemistry,		
George Lees, Esq. A. M., Lecturer on		
Natural Philosophy,	}	<i>Acting Committee of Consultation and Examination.</i>
The Rev. J. P. Nichol, Lecturer on Natural Philosophy,		
Dr Andrew Combe, F.R.C.P.		
Robert Cox,		
		<i>Secretary and Treasurer.</i>

For obvious reasons, all communications to the secretary must be *post-paid*, otherwise they will not be received; and they ought to be addressed thus: "Robert Cox, Secretary to the Society for aiding in the General Diffusion of Science, 23 Charlotte Square, Edinburgh." Communications ought to be in the secretary's hands about a week before the meeting at which they are to be considered, in order that he may announce to the members what business will on each occasion be submitted to them.

ARTICLE VI.

ANATOMICAL REPORT ON THE SKULL OF DR SPURZHEIM;
read before the Boston Phrenological Society. By NATHANIEL B. SMUTLEFF, M. D.*

HAVING been appointed a committee on the skull of our lamented friend Spurzheim—the anatomist who, by dissecting

* From the *Annals of Phrenology*, vol. ii. p. 72. The cut on p. 41. is added by ourselves.—E.D. P. J.

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

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

It is well known that the skull of Dr Spurzheim received the funeral honours which were bestowed upon his other remains, and that it was the intention of his Boston friends to deposit it in the grave with his body.* This last intention was never carried into effect, it having been subsequently understood that such interment would violate an often expressed wish of Dr Spurzheim. On this subject, his friend, George Combe, Esq. of Edinburgh, the distinguished writer on Phrenology, says, in a letter to Mr Capen, "The whole conduct of your countrymen towards him (Dr Spurzheim) was excellent. In one particular only would a knowledge of Dr Spurzheim's own wish have made an alteration. I have often heard him say, '*When I die, I hope they will not bury my skull: it will prove what my dispositions were, and afford the best answer to my calumniators.*'" Dr Gall expressed a similar wish in regard to his own, when he returned to Cuvier a skull which that great naturalist had sent, with the message 'that it appeared to him to confirm his (Gall's) doctrine of the physiology of the brain' '*Take back that skull*,' said the then dying philosopher to Cuvier's messenger, '*and tell Cuvier that there is now only one wanting to complete my collection; it is MY OWN; it will soon be there, as a powerful testimony of the truth of my doctrine.*'

* Dr S. lies buried on the most conspicuous mound in the cemetery at Mount Auburn, under a beautiful monument, exquisitely carved from a block of Italian marble, by European artists, in imitation of the tomb of the Scipios. The word 'SPURZHEIM' cut upon the stone in Roman capitals; though a simple inscription, speaks more eloquently than could any laboured epitaph. This beautiful monument is enclosed by an elliptical iron fence, and was erected by the munificence of Wm. Sturgis, Esq. of this city.

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

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

	Inches.
Greatest circumference (measured horizontally),	22 $\frac{1}{2}$
... length from occipital protuberance to the frontal sinuses,	7 $\frac{1}{2}$
Distance from occipital protuberance to the naso-frontal articulation measured over the head,	13 $\frac{1}{16}$
... naso-frontal articulation to superior angle of the occipital bone,	7 $\frac{1}{16}$
... naso-frontal articulation to the anterior extremity of the sagittal suture,	4 $\frac{1}{16}$
... occipital protuberance to superior angle of the occipital bone,	2 $\frac{9}{16}$
... occipital protuberance to anterior extremity of the sagittal suture,	6 $\frac{1}{2}$
Greatest breadth of skull, measured between the temporal bones, 1 inch above the orifices of the ears,	6 $\frac{1}{4}$
Distance from mastoid process to mastoid process,	5 $\frac{1}{16}$
... ear to ear,	4 $\frac{1}{2}$
... naso-frontal articulation,	4 $\frac{1}{2}$
... frontal sinuses,	4 $\frac{1}{16}$
... anterior extremity of sagittal suture,	5 $\frac{1}{2}$
... summit of head,	5 $\frac{1}{16}$
... superior angle of occipital bone,	4 $\frac{1}{16}$
... occipital protuberance,	4 $\frac{1}{2}$
... ear over the summit of the skull in a vertical direction,	14
... around the lower part of the forehead	11 $\frac{1}{2}$

* Dr S. died on the 10th of Nov. 1832. His brain was weighed on the 12th. Being present, I took an account of the weight, which, after deducting for that of the napkins, &c. which were used, was exactly 3 pounds 7 ounces and 1 dram, or 55 $\frac{1}{2}$ ounces avoirdupois. The brain was previously deprived of its liquors, and divested of the dura-mater.

	Inches.
Distance from ear to ear around the back of the skull at the occipital protuberance,	9½
... .. parietal protuberance to parietal protuberance,	5½
... .. between the anterior inferior angles of the parietal bones,	5½
Camper's * facial angle,	61 degrees.

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

" Greatest circumference of head (measured horizontally over Individuality, Constructiveness, Destructiveness, and Philoprogenitiveness),	22½
From occipital spine to Individuality, over the top of the head	13½
... Ear to ear, vertically over the top of the head,	13½
... Philoprogenitiveness to Individuality, in a straight line,	7½
... Concentrativeness to Comparison,	6½
... Ear to Philoprogenitiveness,	4½
... .. Individuality,	4½
... .. Benevolence,	5½
... .. Firmness,	5½
... Destructiveness to Destructiveness,	6½
... Secretiveness to Secretiveness,	6½
... Cautiousness to Cautiousness,	5½
... Ideality to Ideality,	4½
... Acquisitiveness to Acquisitiveness,	5½
... Constructiveness to Constructiveness,	4½
... Mastoid process to Mastoid process,	5½

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

The texture of the skull is fine, and the substance compact, with little or no diploe. Externally, the sutures are very distinct; but internally they are so obliterated as to be scarcely visible. I have never seen the interior of a cranium where the digital impressions, adapted to the exterior of the convolutions of the brain, are so well marked; on this account a mould, particularly of the anterior region, would give as good an idea of the form and size of the convolutions as the best possible cast of the brain. Such a mould would also give a correct idea of the form of the encephalon. I have in my collection a cast of the brain, which I took soon after Dr Spurzheim's decease,

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

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

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

Of the frontal bone, the superior lateral portions on both sides, lying against the coronal suture above the temporal ridges, and moulded on the organs of Marvellousness and Imitation, are somewhat thicker than the other parts of the same bone; while the portion lying directly between the above-mentioned parts and over the organs of Benevolence, is of the usual standard thickness. Those portions called the frontal eminences, particularly the innermost parts which form the wall before the organs of Causality, and also the portions over the organ of Tune, on both sides of the head, notwithstanding the ridge passing over the latter, are, from the thinness of the bone, translucent, and very distinctly defined within. The frontal sinuses, though prominent, are small for a man of Spurzheim's age, (56 years,) and extend only over the organs of Individuality, Form, Size, and Weight, whose developments are very obviously moulded by the inner plate of the skull. It was the opinion of Dr S. that his own frontal sinuses were small: this judgment is verified by the skull itself. The orbital plates of this bone are peculiar for the depth of their digital impressions, and for the definiteness and agreement of these with the divisions on the marked busts. Could it have been possible for either

Gall or Spurzheim himself to have marked the division lines of the organs on the outside of this skull from these impressions within, I believe he would have been astonished at the exactness of the correspondence just mentioned. This is partly shewn in the horizontal section (fig. 1.)* which I have traced with the greatest accuracy from the skull, its vault being divided in such a manner as to allow it to be done without any chance of error. The section from which the drawing is traced is marked by the dotted line in figure 2, and is made (fig. 1.) in the range of the developments of the organs of Eventuality, Locality, Time, Tune, Constructiveness, Acquisitiveness, Secretiveness, Destructiveness, Combativeness, and Philoprogenitiveness. Figure 2. represents the vertical section, likewise traced from the skull, giving a profile view of the skull. As this drawing was made in the median line, the inner plate was not traced, for the reason, that the bone, being thicker in that part and forming a ridge for the attachment of the falciform process of the dura-mater, would not communicate a correct idea of its thickness.

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

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

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

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

Having completed, in as few words as possible, a description of the skull committed to me, I shall, without drawing any con-

* Engraved in the *Annals*, to which the reader is referred.—ED. P. J.

clusion, ask the following question. From the knowledge which we possess relating to the characteristics of Dr Spurzheim, together with the fact that the bones of the frontal region and part of the sincipital are thinner than usual, and more distinctly marked with digital impressions, may we not infer that the organs on which these bones are formed, continually changing and forming anew, are more active than those on which the bone has become thickened without other marks than those indistinctly determined by the boundaries of organs?

ARTICLE VII.

PATHOLOGICAL CONTRIBUTION TO PHRENOLOGY—Case of a Patient in the Montrose Lunatic Asylum. By W. A. F. BROWNE.

Two centuries past, the Royal Society included among its inquiries the study of witchcraft, and Glanvil, * one of its most staunch supporters, composed an erudite treatise on the subject. In this he denounced scepticism of sorcery as equivalent to heresy of faith; for the man who doubted the existence of witches, must, he argued, disbelieve the existence of Deity—patriots and philosophers, saints and sages, united in the opinion, that the half, if not the whole, of the evils of the time, could be traced to the machinations, and could be removed only by the extirpation, of these miscreants. Those who differed on every other topic, agreed in this; those who hated each other, plotted against each other, persecuted each other, were bound together as if by a tie of love or common danger in this the common and national cause; and a crusade was declared against those who believed too much and those who believed too little. If with the philosopher of the day it was believed that supernatural powers could be acquired and exercised in virtue of the performance of certain rites; and if in a philosophic spirit the experiment of evocation was tried; whether it succeeded or not, the ordeal, condemnation, and the stake followed inevitably. But if, on the contrary, a doubt was suggested as to the reality of such powers, the sceptic was treated as a malignant, and burning or drowning as inevitably prescribed. This singular mode of making justice even-handed, is satirized by Butler, in allusion to the ordeal, when recording—

“that within a year
Three score were hanged within one shire
Some only for not being drowned.” †

It is difficult to determine under which category my patient

* See Gorton's Biographical Dictionary, and Conolly's Inquiry, p. 416.

† Hudibras, part ii. canto iii. line 143.

would have fallen—whether she would have belonged to the persecutors or the persecuted. For not only did she firmly believe in witches, and their influence over herself and others, but she practised certain very suspicious ceremonies, for the purpose either of exorcising or of propitiating them, which the inquisitor-general, Hopkins, would scarcely have held to be orthodox. This much is obvious, that that opinion which prevailed amongst our academicians, and which afforded scope for the learning and piety of Dr J. Glanvil, consigned her to an asylum where she spent a large portion of her life, displaying no other peculiarity or alienation of mind.

The history of her delusions may be divided into three periods. The incidents which have been preserved of these are neither varied nor numerous, but they are sufficiently distinct and characteristic.

I. The first of these may be called the era of the propensities. The duration of this period must be limited to *four* years; for although it is highly probable that the dominion of her passions, as well as of her delusions, extended over the whole of her life, there is no authority for drawing this conclusion from the meagre account which exists of her case. Indeed from it we learn that her malady was exasperated by confinement,—that the paroxysms of frenzy were increased in frequency,—and that, although originally docile, she became obstinate, noisy, and unmanageable. There is no evidence that at this time she cherished any specific hallucinations. The derangement was of the temper rather than of the intellect. But from the expressions employed, it is to be presumed that it was not exempt. Previously to her confinement she had borne several natural children; and, apparently in reference to her own *suus* *pas*, she suspected and accused every one, but especially her spiritual guide, of the most improper, indecent, and dishonest conduct.

II. In 1826 commenced the era of superstition. At that time, she appears to have become reconciled to her fellow-mortals, wreaking all her irritability on the inhabitants of a world which occupied more of her thoughts than that in which she lived. She was tormented by devils, spirits, and witches; and so unceasing were these attacks, that her time was pretty equally divided between attempts to make herself useful in the establishment, and struggles against her combined enemies. From the witches she could defend herself, but she had nothing with which to assail the others but oaths and abjurations. Every object around was *witched*, but her own clothes were most deeply impregnated with the moral poison. These underwent a nightly process of purification, which was effected by shaking and then breathing over them. The spirits were invariably

seen in the air or on the top of the garden-wall: they appeared to her in thousands, or rather in myriads, of various colours, although *red* devils seem to have been the predominating species. For this she assigned a very plausible reason: "How could it be otherwise, seeing that they came out of the burning fire?" These incandescent demons addressed her; and the conversation, which she carried on in a scream, had always the effect of rousing her Combativeness and Destructiveness.

III. The last few years comprehend the era of imbecility. She was now regarded as superannuated, and lived on the reputation of her former oddities. While some of her peculiarities were blotted out with the faculties upon the derangement of which they depended, she still believed in witchcraft and saw spirits. The latter she distinguished by the singular appellation of "*strategies*," a title selected either from some fancied property of the object or in that poverty of language under which she now laboured. It is not a little remarkable, that she averred that these beings were employed in assailing her in the same manner as the Yahoos are described by Swift to annoy their foes. She no longer conversed with her familiars, nor could she ever describe them to me further than as *things*. Often she gazed intently on the sky as if they still were visible. She was now generally silent, and sat brooding over the fire or basking in the sun. Sometimes she was roused to converse. I, on one unfortunate occasion, succeeded in getting a rejoinder by unintentionally wounding her Self-Esteem. To the question—"How are ye to-day, auld wife?" she answered, "I'm no sae dooms auld, Sir—Doctor." In the pronunciation of this, as of every sentence she uttered, the last word, especially if it was a title of respect, was not articulated for many seconds after the others, and when the individual to whom it was addressed was probably out of hearing. She formerly used to be fond of and excel in psalmody. For several years she has sung none. She became slovenly and dirty in her dress, and although anxious to be clean and neat as of yore, could not succeed. Her walk was vacillating, and she was accustomed to guide herself by the touch. This, from her being for many years purblind, did not attract much notice; but ultimately it was discovered that she could not find her way in the common sitting-room, and she was pronounced by the keeper to be completely "*dottled*" or imbecile. With the exception of having a common abscess on the side, she enjoyed good health, rarely complaining even of headach, until the night of the 5th October 1885, when she was suddenly seized with apoplexy, and never spoke afterwards. She died on the 8th, and the head was opened on the 9th.

Measurement of the Head.

	Inches.
From Philoprogenitiveness to Individuality,	7 ¹ / ₈
..... Ear to Philoprogenitiveness,	4 ¹ / ₈
..... Concentrativeness,	4 ¹ / ₈
..... Self-Esteem,	5
..... Firmness,	5
..... Veneration,	5 ¹ / ₈
..... Benevolence,	5 ¹ / ₈
..... Comparison,	5
..... Individuality,	5 ¹ / ₈
..... Destructiveness to Destructiveness,	5 ¹ / ₈
..... Combativeness to Combativeness,	5 ¹ / ₈
..... Secretiveness to Secretiveness,	5
..... Cautiousness to Cautiousness,	5 ¹ / ₈

Predominating Organs.—Wonder, Cautiousness, Veneration, Benevolence, and Destructiveness.

Autopsy.—"On removing the skull-cap, an effusion of blood, amounting to about two drachms, was observed, which appeared to have flowed from the occipital sinuses. A large patch of extravasated blood was seen upon the base of the left lobe of the cerebellum.* Great vascularity was observed upon the right hemisphere, immediately above the corpus callosum. The general vascularity of the membranes was increased, but that of the medullary matter diminished. On examining the anterior lobes, two large tumours were observed—the one situate in the substance of the anterior lobe of the left hemisphere; the other situate on the right side of the falx, but evidently arising from the left. The latter appeared not only to have compressed, and to have caused some degree of atrophy in the right hemisphere, but actually to have been united to it in substance. This tumour was about the size of a pigeon's egg, tuberculated in structure, and at its base connected with the other. The tumour first mentioned was about the size of a small hen's egg, and occupied the whole of the convolutions of one-third of the anterior lobe. On being cut into, its structure appeared to be dense, compact, and medullary. Around it posteriorly was detected a large apoplectic cell, containing certainly half an ounce of coagulated blood. The medullary matter surrounding the cell was of soft consistence, and of a bright crême-yellow colour. As to the disease generally, it occupied the whole of the anterior lobe of the left hemisphere; while the atrophy of the right hemisphere, produced by the smaller tumour, extended chiefly to the convolutions corresponding to the superciliary ridge. The larger tumour occupied the situation of the convolutions, these having been moved; and only a thin medullary expansion remained covering the tumour. It was observed, that the con-

* This patch of blood was fluid, and must have been recent: it may have been produced during the attempts to remove the brain.

volutions of the middle and posterior lobes of the right hemisphere seemed as if they were crushed and compacted together, in the manner described as taking place in hypertrophia cerebri.* The compactness here alluded to was likewise observed to exist in a great degree in the middle lobe of the left hemisphere. The rest of the brain, with the exception of the anterior lobe of the right hemisphere, which was affected by the pressure of the smaller tumour, was increased in density and firmness. The olfactory and optic nerves, but especially the latter, were distinctly atrophied. The corpus callosum and central parts of the brain seemed to be quite healthy. No effusion had taken place in either of the lateral ventricles. A small medullary tumour was detected upon the internal surface of the dura mater.†

"W. A. F. BROWNE, Surgeon.

"SAMUEL CLARKE, Student of Medicine.

"ROBERT PATERSON, Student of Medicine.

"JOHN THOMSON, Student of Medicine."

The instruction to be derived from a consideration of this case is of two kinds. It affords an additional proof of the correctness of the organology, or the location of the organs, and illustrates the phrenological doctrines on the subject of insanity.

We have divided the course of the disease, in reference to its duration, into three periods. In reference to its nature, however, there appear to have been only two—a period of the preternatural excitement of one set of powers, and a period of the extinction of another set. Originally, the whole brain seems to have participated in the morbid action, as her disease is entered in the case-book as common insanity, by which is meant general mental disturbance. She is subsequently stated to have been refractory, noisy, and violent. Her Destructiveness and Combativeness were very large. Her tranquillity was afterwards restored; she became obedient and good-tempered—at peace with man, but at war with supernatural agencies. She now delivered herself up to superstitious delusions, and remained for many years engrossed and governed by their power. The large development and diseased activity of Wonder, affecting an ignorant and weakened intellect, impressed her with a belief in

* See a resumé of Dr Simm's paper on Hypertrophy and Atrophy of the Brain, published in the London Medical and Surgical Journal, vol. viii. p. 305.

† The brain is still in my possession, and exhibits the condition here described, with the exception of such features as are transitory, and have been, from their nature, obliterated.

the existence of such beings. Her Caution led her to dread them, her Combativeness and Destructiveness to defy and oppose them, while the whole of the Knowing Organs gave reality to the vision, by imbuing it with qualities borrowed from objects previously seen.

One of the tumours was embedded in the substance of the brain occupying the greater part of the anterior lobe; the other, proceeding from the same origin,* was attached to the substance of the anterior lobe of the opposite side, compressing it, and by its weight and pressure causing the wasting of the *whole region*, but especially of the convolutions which rest upon the supra-orbital plate. As to the precise commencement or the rapidity of the progress of these tumours, no evidence can be procured. No coma, no paralysis, no bodily symptom announced their existence; and if we except the striking change observed in her manner, and which, to an observer ignorant of Phrenology, would have conveyed no distinct idea at all, there were no grounds for suspecting disease in this part of the brain. It is probable that the growth of the tumours was very gradual, and that the formation of the apoplectic cell was sudden, and in consequence of the irritation which the presence of such a large foreign body must have produced. To the former are referrible the cessation of old habits, and imbecility; to the latter, the stupor which preceded death.

When used by the uneducated, unaccustomed as they are to the higher operations of intellect, the word *imbecility* means an impairment or bereavement of the observing faculties—of the ability to perceive and describe the qualities of external objects. In this sense the keeper obviously used the synonym "*dotted*," in indicating the situation of the patient. Of the manifestations of Causality and Comparison we have no means of judging. During the earlier stages of her alienation, they appear rarely to have been called into action; and when they were so, their exercise was as much perverted as that of the other powers. Latterly they had ceased to act, and, from the state of the brain, could not have acted. During the era of superstition, the Knowing Organs were peculiarly affected. Locality fixed the spirits to particular spots, Colour gave them the additional quality of redness, and Number conjured them up in legions. But as the disease proceeded, as a greater portion of brain was involved, and more severely injured, a difference in the manifestation became apparent.

The question may be here introduced—Could it be that this intense and long-continued activity induced the change of structure, the development of the tumours, which ultimately led to

* The common origin has not yet been traced by dissection.

the extinction of these very powers? That long-continued functional disease of other parts of the body, the heart for example, does cause organic disease, cannot now be doubted; and it would be difficult to point out any reason why the same law should not apply to the brain.* Passion is frequently the exciting cause of apoplexy, thus breaking down and destroying the texture of the brain as effectually as a musket-ball, or the process of inflammation. May not, then, the irritation of a diseased mental impression, sustained for years, act in a like manner?† Be this as it may, the following facts are certain. The tumours mutilated the organs of *Tune* and *Time*, and she who was formed for and fond of singing, ceases to sing, or be affected by music. *Order* is implicated; and first she is afflicted by the defilement of her aerial persecutors; and, secondly, she who was the pattern of neatness and cleanliness, becomes slovenly and dirty. *Self-Esteem*, which was large, prompted her to resume her former habits; but the effort was vain—she knew not how to do so. The disease of the organ of *Language* was indicated by her unusual taciturnity, and her peculiar mode of expression. *Weight* participated, and she could not walk without staggering. *Locality* was completely destroyed, and she lost her way in the common hall, with all the objects in which she had been for years familiar.

The diseased phenomena of the other Knowing Organs, such as *Form*, *Size*, &c. were unfortunately not noticed. Indeed, it is remarkable that details of so many peculiarities, and those so strikingly illustrative of the pathology of the disease, have been preserved. The loss of others, which must have existed, and

* Many of Serres's cases of cerebellar apoplexy appear to countenance these views. Should they prove to be correct, many of the most obscure phenomena of insanity will become easily explicable—such, for instance, as the manner in which the indulgence of particular propensities, or the violent excitement of other powers, produces permanent disease.

† We are inclined to regard Mr Browne's conjecture on this point as less plausible than the supposition that the deranged perceptions of his patient were the *result*, not the *cause*, of the disease. Vision-seeing, no doubt, indicates great exaltation of the functions of the Knowing Organs; but the question here arises, Did vision-seeing *precede* and give origin to the disease; or was not the order of events rather the reverse of this? The organ of Wonder, we admit, stimulates the Knowing Organs, so as to occasion the perception of apparitions; and it is intelligible that in this way disease of the anterior lobe might arise from functional excess. We are not aware, however, that any instance of such an occurrence has been recorded; while, on the contrary, there are many where disease of the Knowing Organs was the *precursor* of vision-seeing. Unless the organ of Wonder in Mr Browne's patient gave rise to the perception of apparitions during her whole life, we must conclude that disease was present *before* such perception took place. Besides, the organs of Order and Number, which are not essential for vision-seeing, and would therefore not be implicated in the supposed functional excess, were notwithstanding affected by the disease — EDITOR.

might have proved still more valuable in the exposition, establishes the necessity for noting every particular in the conduct of the insane, however trivial the manifestation, and however chronic and incurable the malady may be.

ARTICLE VIII.

PHRENOLOGY SIMPLIFIED: Being an Exposition of the Principles and Applications of Phrenology to the Practical Uses of Life. Intended as a Sequel to the "Catechism of Phrenology." By a Member of the Phrenological Society of Edinburgh. Glasgow: W. R. M'Phun. 1836. Pp. 208.

THE anonymous compiler of this volume, *calling himself* a member of the Phrenological Society, states in his preface, that "in preparing it for the press, utility, more than originality, has been aimed at." This avowal is, no doubt, exceedingly candid; but its import would have been yet more clear had the writer mentioned that, of his 208 pages, about 188 are transcribed verbatim from works already in the hands of the public, generally without acknowledgment—thus leaving twenty which *seem* to have the attribute of "originality." In plain terms, we have never witnessed a grosser instance of barefaced plagiarism, or greater clumsiness in stringing stolen paragraphs together. The works chiefly plundered are the Phrenological Journal, Mr Combe's Constitution of Man, and treatises by Dr Caldwell. For more than three-fourths of his materials the compiler is indebted to our pages, so that in "aiming at utility" he has laid us pretty severely under contribution. From p. 24 to 68, he has copied nearly the whole of Dr Caldwell's Treatise on Penitentiary Discipline from the seventh volume of the Journal, awkwardly intermixing with it ("in illustration," he says of what *we* have just stated" ! p. 32), extracts from the Constitution of Man, pp. 136 and 138, the Transactions of the Phrenological Society, p. 313, and our fifth volume, p. 557. At p. 51, he suddenly jumps from Dr Caldwell's essay to the Prospectus of the Phrenological Society of Paris (translated in our seventh volume, p. 295), wherein is set forth the utility of Phrenology to artists; but on p. 55 he resumes with Dr Caldwell the subject of prison-discipline! Then follow (p. 59) an anecdote from the Court Journal, and (p. 63) a second slice of the Prospectus of the Parisian Society. On p. 65 Dr Caldwell is rejoined at the point where he was parted from on p. 59, and nothing is found but extracts from his essay above named, and from his Thoughts on Physical

Education, till we arrive at p. 71, where commences a series of acknowledged extracts from the Journal on various topics, occupying twelve pages. Then, on p. 82, a leap is suddenly taken from an adventure in a stage-coach, back to penitentiary discipline; and Dr Caldwell is once more faithfully adhered to till we reach p. 98. Here the compiler introduces, with the following veracious words, a page of quotation from a different author: "*Since writing the above*, we have laid our hands on a description of the person of Jesus Christ," &c. Yet every syllable of "the above" is from the pen of Dr Caldwell, except in one sentence on p. 83, where a little alteration was convenient: instead of saying, as Dr C. does, "We possess the skull of a man who was executed at the age of about thirty, for the last of nine murders, the whole of which he acknowledged he had committed from an inherent love of slaughter," the compiler (who might have been requested to exhibit the said cranium) tells the reader that "we have *seen* the skull of a man," &c. Perhaps, however, he took a trip to Kentucky for the purpose of inspecting it. From p. 100 Dr Caldwell's treatise on Penitentiary Discipline is again unmercifully plundered as far as p. 118, where the compiler says—"We shall conclude *our* remarks on the discipline of prisons by a few cases illustrative of Phrenology, communicated by Dr Otto of Copenhagen to the Phrenological Journal." With these cases, accordingly, he fills seven or eight pages, at the end of which, still copying verbatim from the Journal, he speaks thus in his own person—"We leave it to every body acquainted with Phrenology to judge," &c. (p. 120); and again—"In the foregoing remarks *we* have entirely confined ourselves to the application of phrenological principles to the reformation of criminals, and to moral education generally. *We* shall now," he adds, "attempt to shew that they may be applied with equal power and efficacy to religious instruction," (p. 123). And with this flourish he introduces unacknowledged quotations from Mr Combe to the moderate amount of twenty-six pages! Nearly the whole of these are from our seventh volume, pp. 325, 201-4, 326, 204, 327-330, 205-212. Then we are treated (p. 149) with a speech of Dr Welsh at a dinner of the Phrenological Society, an extract from Dr Combe's work on Mental Derangement, and eleven pages of a report of a lecture by Mr Deville. Next comes (p. 163.) a narrative of Dr Spurzheim's visit to the Edinburgh Lunatic Asylum, which is acknowledged to be taken from the Journal. On p. 167, "We proceed now," says the compiler, "to speak of the principles of Phrenology as applicable in the formation of marriages;" but, instead of "speaking" as proposed, he makes other men speak for him, in plundering Messrs Combe and Smart (Phren. Jour. vii. 414, and viii. 464-472), by whose aid his volume is carried as far as p. 182.

On the following page a paragraph is stolen from Dr Caldwell's Thoughts on Physical Education, and afterwards Mr Combe (Phren. Jour. vii. 412-13-20-21-27) is quoted from, down to p. 187. Next are fifteen pages (plundered verbatim from the Journal, v. 426; vi. 211-15, 218; v. 427) on the choice of servants by their heads. Here we find such expressions as the following reprinted without alteration. "*A friend informed us lately*, that in England he had met with an extensive merchant who stated that he never engaged a clerk without previous examination of his head. *We speak from experience in assuring* our readers that they will find the advantage of following the same rule," (p. 187). And—"We have been favoured with the report, and commit no offence in publishing it," (p. 198). In short, the volume is altogether so disgraceful a production, and so evidently interferes with literary property, that the publisher has thought it prudent to comply with the demand of the proprietors of the Journal, that it should be instantly withdrawn from circulation. Even the title, we may remark, savours of dishonesty; for, independently of what is hinted at in the first paragraph of this notice, the book, so far from "simplifying" Phrenology, is such a jumble of heterogeneous matter, that it is calculated to confound rather than enlighten persons still in the threshold of the study. It is dedicated, without permission, to Dr Welsh.

ARTICLE IX.

STATISTICS OF PHRENOLOGY.

WE are happy to learn that our very intelligent friend Mr Hewett C. Watson is engaged in the preparation of a work on the "Statistics of Phrenology,"—intended to comprise a brief account of the different Phrenological Societies now established in the British isles; a notice of the progress of the science in the provincial towns, so far as any particulars can be ascertained; a list of the distinct works on Phrenology, *pro* and *con*, and of essays and communications on the subject to be found in other works; records of the printed opinions of authors and men of science, and other matters. Mr Watson's object is to shew the collective strength of phrenologists, and to warn editors, reviewers, and others, that prudential considerations should make them now abstain from further opposition to the science; it being too firmly fixed, and too rapidly increasing in public consideration, to be safely attacked by any one, and, least of all, by persons whose reputation or pecuniary interests hang upon public support. In order to render his work serviceable to phrenologists, and an accurate record of the present state of phrenological science in Britain, Mr Watson particularly so-

licits *local* information, and references to phrenological essays introduced into works on *other* subjects. The following circular has been issued to intimate the kind of intelligence sought for, and we earnestly solicit phrenologists in all quarters to co-operate with Mr Watson, who will receive with thankfulness letters in reply from all who are disposed to assist him in his undertaking, whether the circular has been sent to them or not.

“**SIR,**—Being engaged in collecting information for the purpose of shewing the present state of Phrenology in Britain, and the extent to which any knowledge of it is diffused through society, I take the liberty of forwarding to you the following queries on the subject; respectfully soliciting replies to such of them as you may deem proper and find it convenient to attend to. In case of not being prepared to name precise numbers, more general expressions can be used—as, *many, few, very few, about a dozen, about a score, &c.* I have the honour to be, &c.

HEWETT C. WATSON.

DITTON MARSH, NEAR KINGSTON ON THAMES.

“**I. Queries concerning the Phrenological Society of** .

1. Is there any Phrenological Society in ?
2. When was the Society instituted?
3. What number of members does it now consist of?
4. What number of Members of the Society belong to the Medical Profession?
5. Has the Society any Museum or Collection illustrative of Phrenology?
6. What number of Human Skulls are in the Collection?
7. Ditto, Casts?
8. Ditto, Busts or Models?
9. What number of Animal Skulls?
10. Ditto, Casts?
11. Ditto, Models or Preparations?
12. What number of Books treating of Phrenology?
13. What number of detached Portraits, engraved or otherwise, illustrative of Phrenology?
14. What entrance-fee and annual subscription are demanded from persons becoming members?
15. How often does the Society meet?

“**II. Queries having reference to the public of generally, and in the replies to which the Members of the Phrenological Society of are NOT to be counted.**

16. What number of educated and competent persons in and

about admit the general principles of Phrenology to be true ?

17. What number of such persons make Phrenology a particular subject of study, or are so far conversant with it as to entitle them to be called "*Phrenologists*;" applying this term in the same sense as *Botanist*, *Chemist*, or *Geologist*, are usually applied ?

18. What number of educated persons, of ability not below average, deny the truth of Phrenology so far as to come under the designation of "*Antiphrenologists*?"

19. What number of such Antiphrenologists are acquainted with the facts and principles of Phrenology (as set down in the works of Gall, Spurzheim, or Combe) in a sufficient degree to entitle them to pronounce a decision respecting the merits of the science ?

" III. Miscellaneous Queries applying to Members of Phrenological Societies and others indifferently.

20. Is there any Phrenological Museum in _____, not belonging to a Phrenological Society,—and what are its contents according to the queries 6 to 11 on the preceding page ?

21. Have any Public Lectures on Phrenology been given in _____ ?

22. When ?

23. By whom ?

24. How attended ?

25. If no Phrenological Society yet exists in _____, is there any prospect of an early formation of one ?

26. Is there any other Scientific Society in _____ ?

27. What are the name and objects of such Scientific Society ?

28. What number of Members does such Scientific Society consist of ?

29. Does the person, answering any of the questions in this letter, object to seeing his name joined with his replies when printed ?

" IV. Queries addressed to the Authors of published Works and Essays in which the facts and principles of Phrenology are discussed, whether favourably or adversely.

N. B.—It is earnestly requested that persons into whose hands this letter may come will communicate the following queries to any of their author-friends to whom such queries may be applicable.

30. What are the titles of your distinct Works treating of Phrenology ?

31. What are the references to your Essays on the same sub-

ject in other works, or in the standard Periodicals not devoted exclusively to Phrenology ?

32. What are your Works or Essays on other subjects, in which Phrenology is applied to elucidate the subjects particularly treated of ?

33. Where are any of these Works reviewed or noticed (omitting any notices in the Phrenological Journal) ?

34. What, in your opinion, is the best work or essay published in opposition to Phrenology ?”

ARTICLE X.

REMARKS ON THE ERRONEOUS IMPRESSIONS AND SPIRIT OF HOSTILITY AT PRESENT EXISTING, MORE ESPECIALLY AMONGST THE RELIGIOUS PUBLIC, IN REGARD TO THE DIFFUSION OF SCIENTIFIC KNOWLEDGE IN GENERAL, AND OF PHRENOLOGY AND ITS SUPPOSED EFFECTS IN PARTICULAR. By Mr H. G. WRIGHT.

WERE phrenologists to consider it necessary to answer every ephemeral objection that is hazarded against their science, the task might be an endless one. But when from time to time arguments of seeming weight are adduced,—although of *seeming* weight only,—it is befitting to give the world assurance of its power, by shewing how little ground there really is for such objections. It appears to me that this might be advantageously done at present, when there exists, more particularly among the religious instructors of the community, a very erroneous impression of, and consequent spirit of hostility towards, the doctrines of Phrenology.

An idea has got abroad that science aims at usurping the place of Christianity. Not only is this heard in conversation, but, in a printed Prospectus recently issued, intimating the proposed establishment of a religious periodical, under the name of the “Scottish Christian Herald,” the following passages occur:—“All sorts of literary machinery, newspapers, lectures, treatises, magazines, pamphlets, school-books, libraries of knowledge for use or for entertainment, are most diligently and assiduously set in motion, if not for purposes *directly hostile to the Gospel*, at least on the theory that men may be made good and happy without the Gospel, *nay though the Gospel were forgotten as an old wives’ fable* ;” and the writer, after enumerating the facilities and resources now existing for disseminating knowledge, says, that religion should be “going forth in the might of the Lord to meet the gigantic foe on the very terms of his own challenge.

She may not indeed adopt his unholy spirit, but righteously she may wield his own weapon for consummating her godly triumph."

Whilst every well-wisher to the great cause of human improvement must rejoice in the establishment of a work promising to be productive of much good, it is certainly to be regretted that it should have been heralded in such a jealous, grudging spirit. It is not my intention or object, however, to offer any farther remarks on this prospectus than are rendered necessary by its relation to the subject in hand; and I shall therefore confine myself at present to pointing out the extraordinary, though, as it appears to me, strictly legitimate, consequence to which one of the passages leads. The writer states that religion should be going forth "in the might of the Lord," to attack the "gigantic foe," viz. the teachers and the taught—the authors and their works. Now it is obviously implied here, that the directors of "all sorts of literary machinery," and the pupils, are proceeding "in the might of"—*the devil*—for there is no medium—they must be serving either God or Mammon; and thus we have the "father of lies" in the somewhat novel and anomalous situation of lending his powerful aid in spreading the truths of science, and inculcating the beauty of morality and religion! Let us follow out the writer's idea, and imagine the people acting up to what the "unholy spirit" teaches them, viz. that the Creator having bestowed upon them faculties, the fruits of which are benevolence, justice, integrity, &c., it becomes an imperative duty, dictated by Nature and enforced by Christianity, to keep these faculties in habitual action. What would be the result? Why, according to the prospectus, these unfortunates, being under an "infatuation," would be doomed to follow their arch-instructor to the regions below; and we should thus have the curious spectacle of the place of the wicked being occupied by highly moral beings. This, I suspect, would be carrying the millennium considerably beyond what even its most sanguine advocates have imagined possible. Let it not be thought that this is meant in any profane spirit. If the conclusion at which we are arrived be rather startling, it is at least a fair deduction from the premises laid down in the prospectus.

When I saw at the head of the list of those individuals who cordially approved of the design stated in the prospectus, the name of the Reverend Dr Chalmers, I could not help feeling very considerable surprise, that a writer who had entertained the sentiments stated below,* who had deprecated that "nar-

* "Those narrow and intolerant professors, who take an alarm at the very sound and semblance of philosophy, and feel as if there were an utter irreconcilable antipathy between its lessons on the one hand, and the soundness and piety of the Bible on the other. It were well, I conceive, for our cause, that

row, exclusive, and monopolizing spirit," which he feared was "too characteristic of the more declared professors of the truth as it is in Jesus;"* and who had subsequently borne testimony to the beneficial effects flowing from the rapid progress of education;—I say I did feel considerable surprise, that this very writer should view the diffusion of intellectual and moral knowledge as bordering upon hostility to the Gospel! When such a view is entertained, there must be some strange misapprehension as to the nature and tendencies of the knowledge alluded to. But, I would ask, in what respect do the lectures, treatises, school-books, and other means of diffusing knowledge above mentioned, differ from all former lectures, treatises, school-books, &c., which were never, so far as I know, objected to by the clergy? Are the lectures of Dr Hope, and Professors Wilson and Jameson, in the College, less "hostile to the Gospel," than those given by Dr Fyfe, Mr Combe, and Professor Nichol, in the Waterloo Rooms? Is there some latent poison lurking in the words of the latter? Does some moral Upas tree grow in these rooms, making the atmosphere fatal to all who breathe it? Or is it the Philosophical Association that, like a modern Cerberus, with its three lecturers for its mouths, "*tria guthura pandens*," indicates the proximity to Pandemonium?

"Cerberus hæc ingens latratu regna trifauci
Personat?"

Or does Mr Simpson hold up some Gorgon's head, converting the hearts of all who enter the Cowgate Chapel into stone? The lecturers and authors of the present day, as well as of the past, profess to expound the great laws by which the universe is governed. Where, then, lies this moral difference?

But, perhaps, though not said in so many words, the anathema may be intended to be launched principally at Phrenology, and its superstructure of Moral Philosophy; and it may not be unreasonable therefore to examine the grounds on which the false impressions on this subject rest. But, before doing so, I should wish briefly to notice the effect which has actually been produced on the human mind, so far as regards the spirit of Christianity, by the dissemination of mere "secular knowledge."

It has often been lamented, that, down to the nineteenth century, the spirit of Christianity should have made comparatively so little progress. Whence was this? it was asked. One answer indeed was always ready—Because the human heart

the latter could become a little more indulgent on this subject; that they gave up a portion of those ancient and hereditary prepossessions which go so far to cramp and enthrall them."—*Preface to Dr Chalmers's Astronomical Discourses.*

* Discourse I. p. 20. 8th Edition.

was "desperately wicked." But this left the inquirer exactly where it found him, so far as any practical purpose was concerned. We therefore still ask, Whence is this? In vain have we looked for any tangible reply until Phrenology solved the problem, by pointing out in a plain intelligible manner the true ultimate cause. What that cause was will immediately appear.

Religion produces its effects—lovely or terrible—according to the objects upon, and means by which, it acts. We see how a barbarous and warlike age conceived itself to be promoting Christianity in its true spirit by bloody crusades; how, more recently, men thought they did God service by torturing and destroying their fellow-creatures for their conscientious opinions; and how, in still later times, ministers of the reformed religion—ministers of the religion of peace and good-will—were the foremost to doom unfortunate wretches to the flames, from the horrible, though unquestionably sincere, belief that they were interpreting God's message to man in its genuine sense. How is it that we now look back upon these dark pages in the history of religion with such very different feelings? Christianity had been preached, and was well known for centuries. Its ministers were bold and able men, conscientiously desirous to seek the truth "as it is in Jesus." The contents of the Bible—the grand depository of that truth—were as well known, and, generally speaking, it is admitted, much better than now. Men gave you chapter and verse for all they did. How, then, is it to be accounted for that the spirit and temper in which Christianity is now interpreted are so much improved? If the mind sees things in so very different a manner, and if the things seen remain unchanged and unchangeable, must not the mind or its medium of vision be altered? But what has made this alteration? I reply, the progress, the diffusion of secular knowledge—that is, of science. But it may be asked, How is this shewn? In what way has science done this? Let Phrenology now tell.

Often as the fact has been stated, proved, and urged as a proved and therefore practical truth, that the mind acts through a material medium, it seems to me that this great truth has made little or no impression on that part of the community denominated the religious public; at least it has been received merely as an isolated fact, and not as one from which the most important results flow. They look at it as the world would have looked at the apple falling from the tree under which Sir Isaac Newton sat; but they do not, in the spirit of that great man, seize upon it as a key to the most splendid consequences. I must therefore beg leave, once more, to point to this fact as a grand fundamental practical truth, with which those who question the tendencies of Phrenology cannot be made too familiar. But let it not therefore be imagined, as has been often most unphilosophically

done by many, that phrenologists believe matter to be mind. About as logical would it be, to say that philosophers believe the conductor to be the electric fluid. The mind itself remains as much a mystery as ever. We have but discovered the conductors by which its electric powers are made to appear; and we have found that, according to the perfect or imperfect state of these conductors, is it enabled to exhibit these powers and receive its impressions. Now, every tyro in Phrenology knows how the relative proportions of the organs of the mind are, in the course of time, and agreeably to an invariable law of Nature, capable of being changed according to the kind of education and training which they undergo. He knows that the organs of the intellectual and moral faculties, under the stimulus of increasing knowledge, in obedience to this law, gain in strength and volume; whilst the organs of the propensities, under whose tyrannical impulses men, as we have seen, committed the greatest atrocities, lose what the higher faculties gain, and of course, from the converse reason, that, owing to the mind being engrossed with objects of a higher nature, these organs are deprived of the food which formerly kept them in so rampant a condition. Now, that this has actually been the case in highly civilized nations is a fact well known to phrenologists, and hence we are able to see in an intelligible manner how mere "secular knowledge," by thus improving, both positively and negatively, the medium through which religion acts on the mind (or, to recur to our former expression, by improving the mind's eye), has enabled us to view the spirit of Christianity in a totally different light from what our unenlightened ancestors did, and ignorant and barbarous nations still do.

Many who have not been accustomed to consider the moral man as so intimately connected with, and dependent upon, the physical man, may perhaps feel their prejudices shocked with the doctrine of the mind being made to act in so mechanical a manner; but let them steadily continue to investigate the truth—let them consider how fruitless have been the repeated attempts to civilize many savage tribes and nations, or to engraft the mild precepts of Christianity on their ferocious natures. I would, in particular, point to the case noticed by Mr Combe in his "Constitution of Man."* From this case it appears, that Mr Timothy Flint, a Presbyterian clergyman, after passing ten years amongst the savage tribes near the Mississippi, endeavouring by all means in his power to christianize them, at last gave up the task as totally hopeless, concluding with these remarkable words: "It strikes me, that Christianity is the religion of civilised man; that the savages must first be civilised; and that, as there is little hope that the present generation of Indians can

* Henderson edition, p. 198.

be civilised, there is but little more that they will be christianised." Now, I would say, let the inquirer or the doubter compare the character of such savage tribes with the development of their brain in the phrenological museum; let him contrast it with that of the most moral and intellectual nations; and perhaps that examination will do more to remove prejudices than volumes of argument.

If, then, we have been so deeply indebted to general knowledge for the progress of true religion, with what intense interest ought we to regard that science, which—pointing to masses of every species of evidence, dead and living—professes to have discovered and laid open the organ by means of which the Creator has made the human mind to act; a science by which we are taught that the comparatively slow progress of the mind hitherto is clearly attributable to the component parts of this system being unequally balanced; and which, lastly, puts it in our own power gradually to bring all these component parts to their proper relative proportions, and thus give to Christianity a higher and more extended sphere of action, precisely as the physician, from his knowledge of the anatomy and functions of the stomach, can apply to it such means as will place it in the most favourable condition for digesting and assimilating the food most proper for it. But who would dream of saying that the physician was therefore "hostile" to the best food being given, or that he treated the idea of food "as an old wives' fable"? Such, then, being the nature and tendency of Phrenology, is it not well worth while, nay, does it not become the duty of those who undertake to instruct the human mind, to inquire whether this discovery, pregnant with such important consequences to man, really is consistent with truth?

It has been objected, that it cannot be true, because its doctrines are inconsistent with Revelation. Now, assuming for argument's sake that this is true (though, in point of fact, it is totally unfounded), if the world at large will listen to and be satisfied with this objection, that may be sufficient, for the present at least, without going into the subject itself. But if, on the other hand, as is actually the case, the world are determined not to judge by apparent inferences, but to examine the matter on its own merits; if they think they see evidence of its truth, and persist in believing and acting upon it despite all denunciations, then possibly the objectors may exclaim, "If the world will bow down to idols, notwithstanding all our admonitions, let it do so." But we would ask, Is this not virtually confessing that the great object for which the church exists has failed? The objectors, therefore, are in duty bound to look closely into the subject themselves. It is not sufficient that they think it untrue through inference. They must dispel the people's delu-

sions—they must prove to them where the fallacy lies, and thus check them in their *ignis fatuus* chace. If the theory propounded by phrenologists be a false deduction from the evidence founded on, or if that evidence be unsound or insufficient, by all means let it be exposed and rejected, as “science falsely so called.” But if, upon investigation, the system be found to rest upon a rock, then, instead of wasting time in the hopeless task of trying to undermine it, or obstruct its progress by exciting ignorant prejudices against its supposed tendencies, let them acknowledge its truth, and make it subservient to moral and religious purposes.

But the objection with some is, that “Phrenology at best is but the wisdom of this world, which is foolishness,” and that the cultivators of science are (to recur to the words of the prospectus) only “men of this generation.” Very few words will suffice to shew the value of this objection.

“The wisdom of this world” must obviously mean something opposed to permanent wisdom,—sound knowledge,—happiness. When Christ speaks of the children of this world as contrasted with the children of light, he very plainly means, and in fact names, the avaricious, the covetous, the hypocritical,—men whose whole souls are engrossed with the cares of amassing wealth, “*quocunque modo rem*”—men, in short, who are systematically obeying the lower propensities of their nature. Does any rational man for a moment believe that our Saviour alluded to those who were then, or might thereafter be, engaged in studying the works of God, and endeavouring to unfold to the world the profound wisdom and goodness displayed in them, and their admirable adaptation to increase the comforts, and promote the civilization and happiness of man? Such knowledge was, and is, and ever will be, power—power for good—power to elevate the moral and intellectual nature of man—as indeed we have already shewn to have been actually its effect on the world. This assuredly, then, could never be branded as “foolishness;” whereas the vices and follies enumerated by our Saviour, were in the truest sense foolishness, as being a breach of the great moral law, and, as such, certain to bring down the punishment of disobedience on the head of the offender. Nay further, Christ himself in some measure recommends the study of nature to us, when he holds up to our admiration the beauty of the lily of the field: and surely no one who knows even the elements of vegetable physiology will maintain that the uninformed admirer of the flowers of a thousand fields can have so high a perception of the exquisite structure of all their parts, as he who has pondered over their wondrous powers and resources. If, then, the study of nature is praiseworthy—nay, is virtually commanded, since God has given us faculties expressly

to investigate his works—surely it is somewhat unreasonable to term the discoverers or disseminators of knowledge, merely “men of this generation;” or to consider them as “gigantic foes,” whom religion ought “to be going forth in the might of the Lord” to attack. “Gigantic” they undoubtedly are; but for “*Foes*” we must beg leave to read *Friends* to religion, inasmuch as they are enlarging the field of action for its teachers. The lecturer on physical science stores the mind with a thousand proofs of the wisdom and goodness of the Creator. The expounder of moral philosophy points out the duties of man in his domestic and social capacity, and shews, in a simple and most satisfactory manner, how his mental constitution fits him as a moral and religious being, for believing and obeying the truths that Revelation unfolds, and which lie beyond the reach of reason. But although these teachers do from time to time lead the mind from nature up to nature’s God, yet it is more especially the privilege as well as duty of the religious instructors of man to apply this knowledge to its highest purposes. But if it is not laid hold of, and turned to the best account, is that the fault of the man of science? And what are we to think when the aid which science is thus rendering to religion is not only not taken advantage of, but is actually denounced as all but “directly hostile to the Gospel!” We must trust to time and further inquiry for removing these prejudices and inconsistencies.

But, says another class of objectors, “whether Phrenology is true or not, it is inconsistent with Revelation, and is therefore a dangerous study.” What! the natural and written revelations of God inconsistent with each other! Is this seriously maintained? Impossible, surely!—Can the Deity contradict himself?—Can the Being that inhabiteth eternity, unchangeable as that eternity—can He pronounce the works of his hand to be “good,” and send a revelation to man denouncing them as dangerous? Can He unroll them to our wondering eyes, as displaying his wisdom and benevolence, and then proclaim that we must not look upon them? No! it is not God that forbids this, but man, poor fallible man. We all remember how similar objections were brought forward when geology was first placed on the basis of science.* Its doctrines were denounced by that “narrow spi-

* These objections still continue to be urged. The Quarterly Review for April 1836 contains the following forcible remarks (p. 31). “As this unfounded prejudice (that the facts taught by Geology tend to weaken the belief in revealed religion) has, to a considerable extent, been a stumbling block in the way of those who would otherwise have been led to delight and instruct themselves by geological research, the Canon of Christchurch, rightly, we think, attacks it on the threshold of his work. Its origin he traces to a misconception of the meaning of the terms employed in the Mosaic narrative of the creation, from which it has been unwarrantably inferred that the existence of the universe, as well as of the human race, dates from an epoch

rit" which Dr Chalmers has so justly stigmatised. Its discoveries were declared to be subversive of the Mosaic account of the creation, and to set aside the authority of Scripture. Well, what was the result? Why, men were resolved to judge of the matter upon its own merits; they examined the facts adduced, were convinced by the volumes of evidence brought forward, of the truth of geology, and, as a consequence, felt (to use the mildest expressions) a diminution of respect for their religious teachers, as endeavouring, from an unenlightened adherence to their own "narrow, exclusive, and monopolizing" views and interpretations, to stem the progress of knowledge, and as shutting their eyes to the development of the great truths which time is unfolding. What could be more fatal to the influence of those who ought ever to be the calm and candid investigators of all evidence, on whose unprejudiced minds the rising sun of truth should first dawn, than to refuse to look at that glorious light, and yet proclaim that what the world hailed as the sun, was no sun at all, but could only be, at best, some collection of luminous vapours? Nay, what could be more prejudicial to religion itself, which was thus made to appear in oppo-

of about six thousand years ago. Now there is no question whatever that this notion has been utterly disproved by the discoveries of geology, which demonstrate the surface of our planet not merely to have existed, but to have undergone physical changes very similar to those which affect it at present, and to have been quietly and happily tenanted by a long succession of living creatures, vegetable as well as animal, for countless ages before the epoch from which our scriptural chronology dates, and which was signalized by the first appearance of man.

"Whatever difference of opinion may still exist among geologists on other points, *this* is a truth (as Dr Buckland remarks) admitted by *all* observers;—as firmly established, indeed, and on as immovable evidence, as the Copernican system, the theory of gravitation, or any other of the fundamental doctrines of science. Well, then, what follows? Is it wise to endeavour to shirk this established truth—to shut our eyes to it—to avoid the science which teaches it, and thus encourage the foolish and false notion, that there is any thing in it at variance with Scripture? Surely this would be the way to produce the very evil that is dreaded, the undermining of the faith of many in revelation. On the contrary, if, dismissing the vague ideas on cosmogony they have derived from too literal an acceptance of our necessarily imperfect translation, these timid and unwise friends of revelation will confront the Bible itself with the admitted geological facts, they will satisfy themselves that the inconsistency they have assumed is entirely fanciful. But, in the first place, what reason have we to expect to find in the Bible a revelation of geological or other phenomena of natural history, wholly foreign to the object of a volume intended only to be a guide of religious belief and moral conduct? Dr Buckland justly asks, at what point short of a communication of Omniscience, could such a revelation have stopped, without imperfections similar in kind to that which they impute to the existing narrative of Moses." After all efforts to arrest the progress of Phrenology, by denouncing it as at variance with Scripture, have failed, we shall probably have arguments in abundance proving the harmony of the two. It would surely be more profitable to begin by trying to discover this concord, than to end by doing so, only after Religion has been brought into a rude and uncalled for collision with Philosophy.

sition to what men firmly believed to be the true interpretation of the works of God's hand? And such will again be the result if these men once more obstinately oppose themselves to the progress of truth. It is in vain to say that Phrenology, if true, is dangerous: truth cannot be dangerous; error only is so. The only question then to be asked is, Is it true? and if this be satisfactorily proved, let them hail it as a *divine truth*, let them feel assured that it must be consistent with Scripture rightly interpreted. It is the particular interpretation, then, that has been put upon parts of Scripture that must be examined; and if, upon investigation, it be found that certain passages have been understood in a literal sense, where the great commentary of nature, in other words, the works of God, indicate a metaphorical to be the true one, (as in the case of the creation illustrated by geology), let them at once come forward, as worshippers at the shrine of truth, and boldly proclaim, that what man in his ignorance had called a literal day, the Eternal has, by his works, declared to be a thousand years, both in his sight being alike. In such a spirit as this, by a willingness to believe all science to be in harmony with revelation, what beneficial results might we not anticipate for religion, when men saw that it did not run counter to what they all felt to be true, and that its professors, instead of attempting to extinguish the torch of science, held it boldly up, to add its "confirmation strong" to the grand truths of Scripture, whilst its light enabled them to define those minor features whose details had been hitherto somewhat obscure. How differently would religion then be regarded by thinking men.

If this be true of geology, or of science in general, how pre-eminently is it so of Phrenology—a science which lays bare the chords by which the human mind sends forth its harmonies and its discords—a science which enables us to attune those chords so nicely, that the breath of Christianity in passing over them may hereafter draw forth their tones in richest unison; a consummation how devoutly to be wished! When we withdraw our eyes from this glorious prospect and turn them back upon the past, does it not appear wonderful that a discovery, professing to confer upon us the power of working such changes and improvements on the human mind, should have been frowned upon, and scouted as the enemy of man's best interests? Great, indeed, is the power of prejudice; but greater still is the power of truth, and though it may work its way imperceptibly, advance it must in spite of all impediments.

Many may be disposed to smile at all this as utopian. These are not the days, however, to rest satisfied with smiles. The human mind has been aroused from its long lethargic sleep, and feels an insatiable thirst for all sound knowledge; and if

those who ought to bring all departments of it to aid in the great object of elevating our nature,—who should be all things to all men,—who, while they give milk to babes, should give meat to the strong,—if these declare that what the world finds upon trial to be “meat” is only poison, we must not be surprised that the world turns a deaf ear to them. But let us hope that the prejudice which has led to such opinions will soon disappear, and that the time is approaching when sound knowledge of every kind will be hailed as the handmaid of religion.*

Are there any who still have lurking fears, that Phrenology usurps the place of Christianity, or treats the Gospel as “an old wives’ fable?” If so, let a short allegory in conclusion dispel their dread.

The human mind is a garden on which the sun of Christianity has been shining for centuries. The mental gardeners, unable to gain admission, or to see over the walls, were obliged to content themselves with throwing over the seed, some here and some there. They lamented that but a small portion sprung up and bore fruit. They presumed that something was wrong; but how could they remedy that something, while they were unable to perceive the real cause? Nay, even though they might guess its general nature, what the better were they? But now the key of Phrenology has thrown open the garden door, and lo! we have the cause lying palpably before our eyes. Here we see thorns running wild, which, being originally there, have been acted upon by that same sun, even to the detriment of the garden; and there we perceive the thin soil which was quickly exhausted, and could bring nothing to maturity. Now, the moral philosophy of Phrenology points out the implements by which we may cut down the thorns to their proper dimensions, and turn them to useful purposes, and by which we may gradually so deepen and improve the soil, that the sun may draw from it thirty, sixty, or a hundred fold. But this is the work of time. The operations of nature are slow, and whether we

* It is remarkable that while the prejudices alluded to in the text are so rife in the under current of private society, no *divine* has ventured, as far as I am aware, to support them by the authority of his name. Dr Chalmers’ Bridgewater Treatise runs parallel in its subject to Mr Combe’s Constitution of Man, yet although the latter work has been in the hands of the public since 1828, and Dr Chalmers published recently, he takes no notice of its existence; an omission not conceivable if he had regarded it as dangerous, and had been prepared to refute it. The late Dr Andrew Thomson was to some extent acquainted with Phrenology, and he survived the publication of the Constitution of Man for some years; yet although he was the editor of the Christian Instructor, a ready writer, and neither loth nor slow to attack error in every form, he never published a word against it. Even now, who among the clergy ventures his name and fame in the lists against Phrenology?—Not one. Every thinking man will infer from these facts, that it is assailed by mere blind prejudice, and by prejudice alone, which must yield to the progress of investigation and of reason.

are endeavouring to produce the fruits of the mind or of the earth, we must not expect miracles. It is our part to clear the ground. Succeeding generations will reap the fruits. To continue our allegory. Let us hope that the hitherto excluded mental cultivators will now take the advantage of the key thus offered, and walk round the garden, and, if they find all as we say, that they will lend their willing aid in bringing the mental mould into so high a state, that the sun of Christianity may at last draw forth such beauty and luxuriance as to picture to us a second garden of Eden.

ARTICLE XI.

CASE OF INJURY SUSTAINED BY THE ORGAN OF LANGUAGE. By JAMES INGLIS, M. D., M. R. C. S. E.*

As the doctrines of Phrenology can be supported and strengthened only by facts, the following notes, taken at the bed-side of the patient (without having Phrenology in view), will, it is hoped, add at least a little weight to them.

Maria Wilson or Kennedy, aged 33, was shot by a sheriff-officer named Blair, on Thursday the 24th December 1835, in the village of Springholm, near Castle-Douglas. The ball entered the cranium at the external orbital angle of the frontal bone. On the Tuesday following, I was requested to visit her, along with my friend Mr M'Keur. It appeared that, on the night of the injury, she had had an epileptic fit; that, from that time till the Saturday morning following, she had remained insensible; but that, during some part of that day, sensibility had returned, and that she had continued in the use of *all* her faculties until the Tuesday morning, when we saw her, at which time she answered questions correctly, and the memory was quite unimpaired. She complained of some pain of the back part of the head, but especially of a dull, heavy, constant pain in the region of the wound. This was increased by some degree of vertigo, which followed from assuming the erect posture. A probe was introduced into the wound, and, after penetrating about an inch and a quarter, was stopped by a splinter of bone. On passing the probe a little to the right, or towards the median line, the bullet was distinctly felt, having penetrated both tables of the bone, imbedded deep in the rugged edge of the internal one. A sufficient incision being made, I succeeded, after considerable force had been used, to extract the bullet. It was flattened on

* We have omitted some unimportant medical details.—EDITOR.

one side and rugged, having the impression of the bone into which it had been impelled. Several splinters were removed, and also the one mentioned above of greater size, which was pressing upon a portion of the anterior lobe of the brain. The orbital plate of the frontal bone was also considerably injured ; so much so, that, until I removed a small portion of it, which was pressing down upon the eye, the woman complained of something "pricking" the eye-ball.

After all source of irritation had been removed, the external wound was brought together with adhesive straps, and a portion of lint wrung out of cold spring water was applied over all, and ordered to be changed frequently. She was ordered also every third hour a wine glassful of a purgative solution, till the bowels were sufficiently acted on. The pulse was 72 when we left her. The following day, December 30, she complained of violent pain in the back part of the head, but the dull pain in the site of the wound had not returned since the extraction of the ball. Pulse 80. Breathing easy. Had slept for three hours during the night tranquilly. Medicine had operated well.—December 31. Had slept little, and still complained of the pain in back part of the head. Appears drowsy, and answers questions incoherently. The wound discharges healthy pus. No stool since yesterday. Tongue white, but moist. On Friday, 1st January, I found she had been up frequently sitting by the fire, and had partaken of some animal food, although particularly cautioned against it. The pulse was 100, but not full. Face flushed. Skin hot. Tongue white, but still moist. Wound appeared healthy. She had some degree of stupor, and when roused talked incoherently. The next day (Saturday, 2d January 1836) was the first time that I began to notice the difficulty she had in speaking ; the report runs as follows :—"Has slept none. Is, or affects to be, insensible. Complains little of pain. When roused, she *observes and knows every one, and understands whatever is said to her.* Pulse only 68. Tongue foul, but moist. Pupils natural. *Has spoken little since yesterday.* Has got out of bed several times. *She appears to have lost the memory for words ;* thus she cannot express her wants. Sunday, 3d January. Pulse 68. * * * * Slept little during the night, but frequently sat up in bed without speaking."

It was now only, *for the first time*, that my attention was called to the phrenological import of the case, by the following circumstance : The nurse in attendance on Maria said to me, "I wonder many times *that she does not speak, for her tongue is well enough, and when she wants any thing she cannot name it, so that we have to bring a number of things to her, and when it is what she wants she gives a kind of smile.*" These were her *exact words*, for I took them down at the time as she spoke.

She continued nearly in the same state for the next two days, when, after getting into a passion at her attendants, she became rather more comatose. The pulse was 60; heat of head increased, especially in the forehead. * * * * An ample blister applied to the head.—Wednesday, 6th January. Was up several times; *appeared to notice every thing that was going on, but never spoke, except in monosyllables.* A considerable discharge took place from the wound, and a small piece of bone came away. * * *—Thursday, 7th. Still cannot find words to express her wants.—Saturday, 9th January. The symptoms to-day are improving. * * * She is quite collected. The power of speech is also returning.—Monday, 11th. Pulse only 48; slept well. Considerable pain of *back part of head, but none now in region of the wound.* Talks now slowly, and with some hesitation. The wound is greatly cicatrized.

All the symptoms have gone on improving down to the present date (January 18). Still, however, she forgets some words; and, when talking about any thing, she repeats the same words several times before she can recollect others to express her ideas in succession; and often stops short in the middle of a sentence, telling the nurse to finish it for her. I am afraid that the detail of the above case has been somewhat tedious; but from it we find, that whilst, throughout, her other faculties have, for the most part, been unimpaired, *that of speech, or rather the memory of words* to express ideas or feelings resulting from the other faculties, has been very much affected. We find, too, that even this symptom did not appear till, imprudently, she excited the circulating system on the 1st January, (nine days after the receipt of the injury,) and that then the pulse was greatly accelerated from its wonted state; that some head symptoms appeared; and that the “weak point,” as is always the case, suffered most, and *continued to suffer, long after the other symptoms had completely subsided.*

Castle Douglas, Kirkcudbrightshire, 18th January 1836.

POSTSCRIPT.

My patient, Maria Wilson, is now out of danger, and the memory for words is quite restored. I had another case the other day of a somewhat similar nature—a boy who complained of violent pain over both eyes, and also of the eye-balls, as if they were about to start from their sockets. When I saw him, he spoke a few words, and then stopt short. He commenced again and again, with a like result. Cold cloths being applied over the eyes and frontal ridge, he experienced great relief; and, after two hours' continuance, words flowed upon him as uninterruptedly as before. He then told me, that he knew well enough

what he intended to say, but that, just as he was about to pronounce the word, it went entirely out of his memory. After two days the pain returned, and words again were lost. He laboured under hepatic disease, and also disease of the heart. He died about a week after the first attack upon the organ of Language, suffering most part of that time great pain in both anterior lobes of the brain. A post-mortem examination could not be obtained.

21st March 1836.

ARTICLE XII.

1. **THE PHYSIOLOGY OF DIGESTION**, considered with Relation to the Principles of Dietetics. By **ANDREW COMBE**, M. D., Fellow of the Royal College of Physicians of Edinburgh, and Physician in Ordinary to their Majesties the King and Queen of the Belgians. Maclachlan and Stewart, Edinburgh; and Simpkin, Marshall, and Co., London. 1836. Post 8vo. Pp. 332.
2. **DISCOURSE ON THE IMPORTANCE OF THE STUDY OF PHYSIOLOGY AS A BRANCH OF POPULAR EDUCATION**; Delivered at Edinburgh, on 5th March 1836, as Introductory to a Short Series of Lectures on that Subject. By **JOHN FLETCHER**, M. D., F. R. C. S. E., Lecturer on Physiology, and on Medical Jurisprudence, in the Argyle Square School of Medicine. Edinburgh: A. and C. Black; J. Anderson, jun.; and Carfrae and Son. 1836. 12mo. Pp. 24.
3. **THE MORAL REFORMER, AND TEACHER ON THE HUMAN CONSTITUTION**. Edited by **WM. A. ALCOTT**. Nos. I. to IX. Boston, U. S., Light and Horton. January to September 1835. 12mo.
4. **REMARKS ON THE INFLUENCE OF MENTAL CULTIVATION AND MENTAL EXCITEMENT UPON HEALTH**. By **AMARIAH BRIGHAM**, M. D. With Notes by **ROBERT MACNISH**, Author of "The Anatomy of Drunkenness," &c. &c. John Reid and Co. Glasgow; Oliver and Boyd, Edinburgh; Whittaker and Co., London. 1836. 18mo. Pp. 137.
5. **THE NECESSITY OF PHYSICAL CULTURE TO LITERARY MEN, AND ESPECIALLY TO CLERGYMEN**. By **EDWARD REYNOLDS**, M. D., of Boston, U. S. Forming No. VI. of The Student's Cabinet Library of Useful Tracts. Edinburgh: Thomas Clark. 1835. 18mo. Pp. 34.

THE conviction is rapidly making progress among reflecting persons, that in no way is it possible to improve the human mind, and preserve it in vigour, except by ameliorating and strengthening the cerebral organization. But although the brain is the organic part through which exclusively the mental powers can be changed or affected, yet so closely is it linked with the

rest of the body, that without keeping the whole in good condition, its own vigour is necessarily impaired. Dr Combe, in the eighth and ninth chapters of his former volume, "The Principles of Physiology applied to the Preservation of Health, and to the Improvement of Physical and Mental Education," pointed out the laws of exercise which regulate the brain, considered as a separate organ; in his present work, and several chapters of the former, he shews the influence exerted upon it by the state of the digestive, respiratory, circulating, and excretory functions. The importance of these subjects in relation to the mind and brain is easily understood. Every part of the human body is incessantly undergoing waste of its substance, from the constant activity of the absorbent vessels and those of excretion—the latter being chiefly the skin, lungs, bowels, and kidneys. By this loss of substance the organ is weakened; its function languishes; and, unless repaired by a supply of fresh materials, it becomes altogether unfit for the performance of its duty. One of the offices of the blood is to renovate the body, by laying down in all parts of it the substances of which they respectively stand in need. To the bones it supplies bone, to the muscles flesh, and to the brain the materials of which that viscus is composed. That the body may be properly nourished, therefore, the blood must be sufficiently copious, and its quality must be healthy and rich. Now, it is obvious, that to realize these conditions two circumstances are indispensable: first, the materials of which the blood is composed must be good and abundant; and, secondly, the organs which convert them into blood must be capable of vigorously performing this operation. From materials of bad quality good blood cannot be made, and by weak or unhealthy organs even the best materials cannot be turned to proper account. Food and atmospheric air are the materials from which the blood is elaborated; and the organs by which the process is performed are the stomach, bowels, and lungs. Other parts, however, such as the teeth, liver, and pancreas, lend their assistance in this important work. Food taken into the mouth is, by the teeth and saliva, converted into a soft mass, and thus prepared for deglutition and subsequent changes. On arriving at the stomach it excites the secretion of the gastric juice, a fluid which has the power of reducing all kinds of aliment to a homogeneous pulpy substance, called chyme. In this condition the food passes into the bowels, where, by the admixture of bile from the liver, and pancreatic juice from the pancreas, it is converted into two distinct portions—a milky fluid called chyle, and a thick residuum, which, being of no use to the body, passes through the bowels and is discharged. From the intestines the chyle is sucked up by small vessels called the lacteals, which unite and form the thoracic duct, whose course

is upwards along the spinal column. On arriving at the top of the chest, this duct unites with the subclavian vein; just before it reaches the right side of the heart; and in this way the chyle is poured into the general current of the venous blood. But although thus mingled with the blood, the chyle is not yet entirely fitted for its duties. To complete its preparation, it must be exposed to the action of the atmospheric air during respiration. This is accordingly done by its passing through the lungs along with the dark venous blood, which, in consequence of the deterioration that it has sustained in nourishing and stimulating the body, stands in need of the same change. In the course of this process, both the chyle and the venous blood are converted into red, arterial, or nutritive blood, which is afterwards distributed by the heart, through the arteries, to every part of the system.

One other condition is necessary for putting the blood into a healthy state. It must be purified by the sufficient performance of the functions of excretion. And hence, for example, the necessity of regularly cleansing the skin.

But it is not by supplying nourishment only that arterial blood invigorates the body. Its presence excites every organ to action; and the more excellent its quality, and the greater the velocity of its circulation, the more intense is the stimulus which it affords.

The brain is not less dependent on the blood for stimulus and support than the rest of the animal machine; and, consequently, every circumstance influencing the blood affects also the brain and its functions. If the food is defective, or of bad quality; if the air which we breathe is impure; if the stomach or liver is in a weak or morbid condition, so that it cannot furnish the gastric juice or bile necessary for chylification; if the lacteals or their glands (the mesenteric) are diseased, and therefore unable to convey the chyle to the bloodvessels; if, by neglecting ablution of the skin, we unfit it for exhaling the noxious particles of the blood; if the lungs are too small, or diseased; if the heart is weak and unable to circulate the blood with sufficient force; if, through neglect of muscular exercise, we permit the circulation, the breathing, and the functions of excretion to languish;—in one and all of these cases, the vigour of the brain is, to a greater or less extent, impaired. But this is not all: for, in consequence of the intimate connexion between the brain and the digestive organs by means of the nerves, their diseases influence the brain sympathetically, and often give rise to serious derangement of mind. Thus, even without reference to the value of health for its own sake, it becomes of great importance, with a view to mental efficiency, that we should be aware of the qualities of food and air, the relations of these to the human

body, the rules by which we ought to be guided in selecting and apportioning our aliment, and the principles by attention to which the health of the blood-making organs may be secured.

Such is the information which Dr Combe affords in his work on Digestion, and in the other volume above referred to. His present treatise is divided into two parts—"The Physiology of Digestion," and "The Principles of Dietetics viewed in relation to the Laws of Digestion." In the first chapter of the former division, he shews that food is necessary to supply waste, both in vegetables and in animals. Vegetables draw nourishment, by means of their roots, from the soil; but animals, being locomotive, need a receptacle into which the food may be conveyed, and whence the lacteals (which are analogous to the vessels of the roots of plants) may at leisure suck up the necessary aliment. Such a receptacle are the stomach and bowels. But something else is still required. The animal must have *an inducement to fill the receptacle*, and be enabled, moreover, to *proportion the supply to the necessities of the body*—varying, as these do, with the rapidity of its waste and growth. For this twofold purpose, the appetites of hunger and thirst are given; and Nature has so arranged, that, in the healthy system, their craving arises only when food is necessary, and ceases when enough has been taken in. Dr Combe accordingly proceeds, in Chapter II, to treat of hunger and thirst, which he shews to be affections of the brain, excited by certain conditions of the stomach and body at large. The third chapter is on the functions of mastication, insalivation, and deglutition, and the organs by which they are performed. The author then proceeds, in Chapter IV, to consider the stomach and gastric juice, and gives a most interesting account of the observations made by an American physician Dr Beaumont, on the stomach of a Canadian named Alexis St Martin. This man was wounded, in 1822, by the accidental discharge of a musket, which made an opening through the integuments and ribs into the stomach. The wound healed, but the aperture remained, being closed up only by a valve opening inwards. Dr Beaumont made a long course of observations on the phenomena of digestion, the results of which are of singular interest and importance, but to which we cannot do more than allude. Dr Combe's fifth chapter is on the Theory and Laws of Digestion; and the next—on Chylification and the organs concerned in it—concludes the first part of the work. Part Second is subdivided as follows:—Chap. I. Times of Eating;—II. On the proper quantity of Food;—III. On the kinds of Food;—IV. Conditions to be observed before and after Eating;—V. On Drinks;—VI. On the proper regulation of the Bowels. This portion of the volume is replete with valuable instruction, and is eminently practical in its exposition. Of these,

however, neither our limits nor the objects of this Journal admit of a detailed analysis. We shall merely quote, as a specimen, some of the author's observations on the mutual influence of the brain and stomach, this being a subject more particularly within our province.

"Among the circumstances which favour digestion," says he, "the observance of bodily rest and mental tranquillity for some time before and after every meal, is perhaps the most important; its influence depends on a well known law of the animal economy, already frequently alluded to, but to which, that it may be fully understood, I must again shortly refer.

"Whenever any living part is called into vivid action, an increased flow of blood and of nervous energy towards it immediately commences, to enable it to sustain the requisite degree of excitement, and continues till some time after the activity has ceased. In accordance with this law, whenever food is swallowed, the lining membrane of the stomach becomes suffused with blood, and, owing to the greater distention of its vessels, its colour changes from a pale pink to a deep red hue. After digestion is completed, and the unusual supply of blood is no longer required, the vessels again diminish, and the colour returns to its original tint. It St Martin's stomach, these changes were so often seen by Dr Beaumont, as to render their occurrence as fully demonstrated as any circumstance with which we are acquainted."

"It is obvious, however, that the great afflux of blood which takes place towards the stomach and intestines during digestion, cannot occur without a corresponding diminution in the quantity circulating on the surface and in other distant parts of the body, attended of course with a diminished power of action in them. Hence, for some time after a full meal, there is an inaptitude for vigorous thinking and bodily exertion, a depression of respiration, and, in delicate persons, a degree of coldness or chill felt over the whole body. But, under ordinary circumstances, this depression is not of long continuance. After the requisite secretions have been provided for the solution of the food and the formation of the chyle, a reaction and change in the distribution of the blood, now partially renewed by the admixture of nutritive chyle, ensue, and, by the stimulus which they afford, soon fit the person for the active resumption of his ordinary duties.

"That this impaired activity of the other functions after a full meal is natural, and intentionally arranged by the Creator, is plain, both from its universality among all kinds of animals, and from the mode in which it is produced. Among the lower creatures, the sluggishness induced by eating increases in proportion to the degree in which they gorge themselves with food. The boa constrictor, after a plentiful repast, slumbers for a

week ; and the glutton of our own species, in similar circumstances, drops into a stertorous sleep of several hours. If active exertion immediately after a full meal be rendered compulsory by any external cause, such as the presence of danger urging to flight, the aliment often remains for hours in the stomach undigested. Again, the very distention of the stomach inseparable from a hearty meal, *necessarily* impairs the activity of several of the functions, by directly pressing upon the vessels which supply their organs with blood, and consequently diminishing the stimulus essential to their activity.

“ The obvious practical inference to be deduced from a consideration of the principle under discussion is, that rest of body and tranquillity of mind for a short time both before and after eating are necessary, and conducive to healthy digestion. If we have been engaged in severe and fatiguing bodily exertion, or anxious meditation, just before sitting down to a meal, the blood which was flowing through the vessels of the muscles or the brain to keep up their unusual action, still continues to do so, because a sufficient interval has not elapsed to allow the excitement to subside, and a new distribution to take place towards the organs concerned in digestion. The consequence is, that the stomach does not receive blood enough to carry on its increased action, and furnish gastric juice with sufficient rapidity, or in sufficient quantity, to mix with the whole of the food ; and that the nervous energy, already partially exhausted by over-excitement in the remoter organs, is imperfectly supplied to the stomach, the tone and action of which are thus so far impaired as to render it no longer able to carry on digestion with its usual success. Accordingly, when we are fatigued with mental or bodily labour, we are naturally impelled to seek repose before sitting down to table ; and if we yield to this instinctive prompting, and refresh ourselves by a rest, we not only enjoy better what we eat, but also digest it with an ease and comfort unattainable by swallowing our food the moment our labour is at an end—and hence the wisdom and advantage of appropriating half an hour to any light occupation, such as dressing, before sitting down to dinner. If, however, we have previously been engaged only in very moderate exercise, an interval of repose is not required, because then there is no undue excitement elsewhere to retard the necessary flow of blood and nervous energy towards the internal organs.

“ The practical rule of avoiding serious exertion of mind or body immediately after eating, which is directly deducible from the physiological law above explained, has long been acted upon in our treatment of the lower animals ; and no one who sets any value on the lives of his horses or dogs, ever allows it to be disregarded with respect to them. And yet the same man who

would unhesitatingly dismiss his groom for feeding his horse immediately after a fatiguing chase or a gallop home, would probably think nothing of walking into the house and ordering dinner to be instantly served for himself in similar circumstances. In the army, the difficulty of managing recruits on a march, in this respect, has often been remarked. Fatigued with the day's exertions, they are impatient for food, and, when they get it, can scarcely refrain so long from devouring it as to admit of its being even moderately cooked. They consequently labour under the double disadvantage of eating before the system is in a sufficient state of repose to benefit by the supply, and of having the food itself in a condition unfit for easy digestion. The old campaigner, on the other hand, instructed by former experience, restrains his appetite, systematically kindles his fire, cooks his victuals, and makes his arrangements for the night, with a coolness of deliberation which surprises the recruit; and he is amply repaid for his temporary self-denial, by the greater enjoyment and support which he derives from the very same materials which the impatience of the other has caused him in a great measure to waste.

“ It must not, however, be imagined, that the period of repose necessary to insure healthy digestion extends over the whole time of the continuance of food in the stomach. After a moderate meal, and in ordinary health, the concentration of the vital powers in that organ, and their proportionate depression in other parts of the body, rarely continue, at least in a very marked degree, beyond the period usually allotted to the *siesta*, or sleep after dinner, in warm climates, and even in Italy and Spain—namely, an hour or an hour and a half. When the meal has not exceeded the bounds of moderation, *a sufficient quantity of gastric juice for the digestion of the whole is secreted generally within the first hour*; after which time, consequently, the same quantity of blood is no longer required to be directed towards the stomach, but may beneficially be distributed to such other parts as from their activity more immediately require its aid. If the muscular system is to be employed in labour or locomotion, the blood can now be spared to sustain its activity; if the mind is to be engaged in intellectual pursuits, it can be sent to the brain without robbing the stomach. The same principle, of course, applies to all the other organs; and it is therefore chiefly during the first hour, till all the gastric juice be provided and the chymification of the food be fairly commenced, that tranquillity of mind and inaction of body are so essential.

“ As already mentioned, the reality of increased circulation in the vessels of the stomach during digestion has been established by ocular demonstration, as well as by analogy. The increase in the supply of nervous energy which takes place at the same

time is, however, scarcely less certain, although from its nature incapable of being seen. It is the almost characteristic feature of the nervous system to be excited by stimulus to increased action; and we formerly saw that when the nerves of the stomach are cut, and the flow of nervous influence is arrested, digestion instantly suffers. But the same principle holds in the nervous as in the circulating system. Energetic action cannot be kept up in two distant parts of the body at the same time. If the intellect be intently occupied in profound and absorbing thought, the nervous energy will be concentrated in the brain, and any demands made on it by the stomach or muscles will be very imperfectly attended to. If, on the other hand, the stomach be actively engaged in digesting a full meal, and some subject of thought be then presented to the mind, considerable difficulty will be felt in pursuing it, and most probably both thought and digestion will be disturbed. If the mental effort required be easy and agreeable, and the meal be a very temperate one, there will be much less difficulty in simultaneously proceeding with both, because comparatively little nervous energy will then suffice for them. Still, however, each will go on more efficiently if not interfered with by the other.

“When the mind is active and vigorous, and properly exercised in all its departments of feeling and affection as well as of intellect, the nervous influence which the brain produces is not only more abundant, but of a more healthful and invigorating quality. Hence the well-known preservative and restorative influence of cheerful dispositions and gratified activity of mind, and hence the depressing, morbid, and often fatal effects of corroding care, grief, or apprehension, on every organ of the body. Hence, too, the weak digestion and sallow complexions of literary men and hard students, who suffer severely from transgressing this law of the animal economy, by habitually engaging in occupations requiring much exertion of mind, not only soon after, but even during the very act of swallowing their meals. Ignorant of the connexion subsisting between the different functions, and of their laws of action, few can be convinced in time of the importance of observing this condition, even after its operation has been explained to them. In the conclusion, however, experience teaches many whose reason is insufficient for their guidance, and forces them to a closer conformity with the dictates of nature, when obedience is almost too late to be of benefit.

“The prodigious influence of the nervous system on digestion is familiarly and unequivocally exhibited in almost every case of dyspepsia which each succeeding day brings under the notice of the physician. *He* knows well from experience that the diet may be selected with every care, its quantity duly proportioned, and exercise rigidly practised, and yet all his curative treatment

fail even to relieve, unless his patient be at the same time freed from the pressure of care, and due attention be devoted to the observance of mental and bodily repose after every meal. The heavier the meal, the greater is the desire for absolute rest, and the less advantageously can active exertion be encountered. When the stomach is loaded, the whole vital energies seem to be concentrated in it, to enable it to cope with the task imposed upon it. But when we eat temperately, there is less necessity for entire quietude of mind and body. Accordingly, if we do not experience the same dislike to exertion after a light forenoon lunch, which we do after a heavy late dinner, the reason is simply, that less gastric juice, less nervous energy, and less vigorous action in the stomach, are required, to digest in the one case than in the other."

These remarks are largely illustrated by Dr Combe, to whose volume we are forced to refer for additional details. He has throughout insisted strongly on the important fact, too often overlooked, that the digestibility of different kinds of food depends, not on their quality alone, but also on the condition of the system at the time when they are swallowed; so that it is absurd to lay down general rules on this subject, and to represent them as applicable to all men indiscriminately, or even to the same person in different circumstances. And the same remark is applicable to the *quantity* of food; for this, also, must vary according to the state of the body. "There is no kind of alimentary substance of which it can be said absolutely that it is always proper for the sustenance of man. To be serviceable, *the food must be adapted to the age, constitution, state of health, and mode of life, of the individual, and to the climate and season of the year.* The same diet which, administered to an adult, is healthful and nutritious, may prove irritating and injurious to a child; and, in like manner, the stimulating animal diet which in winter is highly grateful to the system of a hard-working unexcitable labourer, may prove utterly destructive of health when indulged in during summer by an inactive and excitable female. It becomes, therefore, an object of deep interest to determine the principal causes and states of the system which render modifications of diet necessary."

The preceding observations have extended to such a length, that we can devote only a brief space to each of the other works named in the title.

Dr Fletcher's "Discourse" is eloquent, philosophical, and convincing; and as it has been printed in a cheap form, we hope that the friends of knowledge and liberal views will lend their aid in promoting its wide circulation. The author (whose premature death since the Discourse was spoken, we, in common with many other lovers of science, deplore) points out the very

interesting nature of the study of our own bodies, and the evils which flow from ignorance of physiology; and he repels most successfully the objections which have been urged against this department of knowledge as a branch of general education. Nor is he less felicitous in defending physical science against the insinuations of those, who, on pretence of honouring the word of God, depreciate the study of his works. "To attempt," says he, "to render the writings of any class of philosophers a *substitute* for the Bible, is to attempt to annihilate all the noblest and best aspirations of man; but I am totally unconscious of the existence, in any class of persons, of a desire to do so, and I cannot help thinking that rather more jealousy than is calculated to benefit their cause has been lately displayed by some well-meaning people, of any interference by lay teachers with the business of religion. The same God who gave us the Bible as the mandate of his will, gave us the objects of nature as the testimonials of his wisdom, power, and goodness; and I am at a loss to perceive by what train of fair reasoning any one who insists on the latter as bearing evidence of the highest attributes of the Creator, can be construed into an opposer of the former as inculcating the sublime truths of revelation. Why should facts which might be rendered mutually illustrative of each other, and made to act as allies strengthening and receiving strength, be adduced only, or supposed to be adduced, in opposition? In the prospectus of a work, the first number of which is advertised to appear this very day (5th March 1836), it is said to be 'the signal heresy of the age, to believe that whatever increases that knowledge which is power, increases also the blessings of peace.' But it may surely be said, without heresy, that that knowledge needs not diminish these blessings, and that if it be not attempted to make natural knowledge supersede that which has been bountifully revealed to us—if they be allowed to go hand in hand together, not recklessly pitted against each other—such knowledge will make us, not only wiser, but more religious men. It appears to me, further, to argue rather a sickly kind of piety in the advocates of revealed truth, to be thus tremblingly alive to every imaginary encroachment; and, paradoxical as it may appear, it seems to me to betray even some degree of infidelity, to be so morbidly tenacious of the faith. It is not the man who is confident of his strength, it is not the woman who is satisfied with her beauty, who is the most captious and dragon-like in defence of an undisputed claim—the most rigorous in exacting homage—the most sensible to every slight, real or supposed. Let, then, the advocates for revealed religion, relying on the might and excellence of their cause, show themselves above such paltry feelings; let them remember that many of the most eminent supporters of natural reli-

gion have been at the same time no less eminent as humble and sincere Christians."

"The Moral Reformer" is a very useful and well-conducted periodical, though we think that the editor sometimes speaks too confidently on matters respecting which he differs in opinion from many eminent physicians. He entirely proscribes tea and coffee, for instance, as well as malt liquors of every kind, except as medicine; and he has a considerable aversion to animal food. It is not kept sufficiently in view that different constitutions require to be differently treated. A refreshing spirit of philanthropy pervades every part of the work. Its aim is thus set forth in the opening address:—

"Society groans, says a popular writer, under a load of suffering, inflicted by causes which might easily be removed, but which, in consequence of ignorance in regard to our own structure, and the relation of different parts of the system to each other and to external objects, are still permitted to operate. On this account, he adds, 'persons of much good sense in every other respect, not only subject themselves, unwittingly, to the active causes of disease, but *give their sanction to laws and practices destructive equally to LIFE and MORALS.*'

"This we believe to be correct; and here we take our stand. In the Moral Reformer and Teacher on the Human Constitution, we propose to show, not only the structure and laws of the human system, but the almost inseparable connection of health and morals,—a connection too often overlooked or disregarded.

"There are two sources of the general neglect to which we have adverted. One is ignorance, and the other prejudice. Unhappily, the latter is not always diminished by removing a degree of the former. There are smatterers in medical science, or devourers of medical books, who, for want of any previous fixed principles in regard to the laws of the human body, either in health or disease, become just sufficiently enlightened to make themselves thorough dyspeptics; and to subject those whom they love more than themselves, to disease in various forms. They watch, with trembling anxiety, every change of temperature, every breath of wind, every mouthful of food, and every new sensation, till they come to suffer, either in imagination or reality, the very evils which they have laboured to avoid.

"But give to mankind, at the outset, fixed principles in anatomy, physiology, and hygiene—let parents know by what general rules the physical education of *their rising charge* is to be conducted—and let those who are at an age which deems itself too wise to listen to parental counsels, on topics of paramount importance, (even if such counsels were to be had,) but who are yet inexperienced in the world, know how to educate *themselves*, physically, socially, morally and religiously—and there is rea-

son to hope for a change in society which shall be greatly in favour of human happiness. There is reason to hope, even, that those bodies which are designed to become 'temples of the Holy Spirit,' will be trained in a manner worthy of Him, whose they are, and for whose reasonable service they were intended."

The following extract, on Sunday Dinners, may be appropriately quoted as an illustration of the necessity of attending to the laws of physiology, even with a view to religious improvement:—"Perhaps no one thing which, at first view, appears to be of so little consequence, more effectually obstructs the way to moral reformation than the fashionable practice of eating to excess on Sunday, especially at dinner. The whole energies of the brain thus become concentrated, as it were, on the stomach; and you might almost as well preach to a somnambulist, during one of his paroxysms, or to a maniac, as to one who has just dined heartily. The person has indeed eyes, but he sees not; he has ears, but he understands not; he has a brain and nervous system, but it is benumbed and stupified; and he has a heart, but it cannot feel.

"Now I do not speak of those alone who actually sleep in church; for every one knows that neither the services, nor the day, nor the force of divine truth, will be likely to affect them. But I refer to a much larger, and perhaps more respectable class of the community. I refer to those who, though they may not actually resign themselves to the arms of Morpheus, would yet do so, if there were no cinnamon, or cloves, or orange peel to masticate; or if they did not make a constant effort, and perhaps prick themselves with pins, to prevent it.

"There are many reasons why a person should eat a lighter rather than a heavier dinner on Sunday than on any other day; among which is the fact that most people use, on this day, a less amount than usual of physical exercise. Another reason is, that the air of a church, confined, and heated, and impure, as it often is, has somewhat of a stupefying tendency. Another reason still is found in the fact that those who are accustomed to much exercise on every other day, are of course dull when they come to sit still an hour or two, under circumstances the most favourable.

"But there is a stronger reason still, why we ought to eat light dinners on Sunday. Multitudes who were before drowsy in church, but have made the experiment of being a little more abstemious, have found themselves not only the more wakeful and happy for it, but the more active and cheerful and vigorous, in body and mind, not only during the whole day and evening, but throughout the succeeding day."

Again, with respect to the bad effects of inadequate ventilation :—

“ Take the case of the school teacher. His pupils grow tired of study, begin to sit uneasy, and to yawn. Presently, to relieve themselves from their misery, they begin to play with their fingers, or their books, or their companions. Now they ask to go to the fire, or to get some water ;—now to go out. The teacher nods, frowns, threatens, and perhaps flogs ; all to no purpose. The evil is not removed. The pupils cannot be happy, while they are breathing an atmosphere one half or one fourth of which is made up of carbonic acid. He may make them hypocrites, by compelling them to sit quietly and look on their books, but he cannot make them *study*.

“ We again say that other things may produce these evils besides bad air. There may be uninteresting or unintelligible lessons or books before the pupil. There may be bad food in the stomach. There may be too high a temperature of the air, aside from its impurity. There may be ill health. There may be actual fatigue. There may be a real dislike to books and lessons. All these and many more causes may be combined. Still, if you remove all these, and ventilation is still needed, what have you to hope for ? Lower the windows, while the school is out for a few moments ; throw open the doors—no matter how *cold* the weather is,—and you will find the whole aspect of things changed ; and changed, too, in your favour.

“ Take the Sabbath school teacher ; especially where the pupils are obliged to attend two Sabbath schools in a day, besides two or three ordinary church exercises. Take him, say at the second lesson, between one and three o'clock. A prominent cause of his pupils' indifference, under the most solemn and affecting appeals to their consciences, may be found in the state of the atmosphere. This is especially the case where the Sabbath school is held in the church itself.

“ Take, lastly, the minister. How many a minister has laboured almost in vain, and spent his strength almost ‘ for nought,’ and made, perhaps, every variety of appeal to his hearers, calculated to rouse the heedless, alarm the careless, or wake up the stupid ; and all to no purpose ! There his hearers are in the shape of rationals, but yet unmoved ; as much so as the seats on which they sit, and the walls by which they are surrounded. That full or excessive dinners, a disagreeable subject itself, and many other circumstances, have their influence, is most undoubtedly true. But this is not all. There is too much carbonic acid gas present.”

The following appeal in behalf of children at church cannot fail to move the compassion, and lead to modification of the con-

duct, of every parent of right feeling who stands in need of enlightenment relative to the subject adverted to:—

“My heart has ached to see children of five or seven years old taken to church, and there pinched, and shaken, and threatened by their parents, to prevent them from falling asleep. I have seen children forbidden to rest on the backs of the pews, and forced to sit upright on the seat, lest they should have any encouragement to slumber; and if nature should be overcome, as it must often be in such tortures, a severe pinch and angry looks are inflicted to rouse the victim.

“How parental affection can endure to act in this manner, I cannot conceive; but reason and religion are both outraged by such conduct. It is physically impossible for most young children to sit in one position, and in silence, without becoming drowsy; it is therefore most irrational, as well as cruel, to attempt to force out this natural effect. So it is an outrage on religion that parents should manifest such a disposition anywhere, but especially in the house of God; and that they should take such a certain method of creating disgust to the sanctuary.

“If parents will or must take such young children to church, let it not, above all other places, seem to be the one where parental feeling is suspended, to give place to harshness and cruelty. It is much less derogatory to the reverence due to a place of divine worship, that an infant should be allowed quietly to sleep, than that its parents should make it the scene of their thoughtless severity.”

There are two useful articles on the physiological circumstances which influence the activity of the amative propensity, and on the means of allaying its violence. Nowhere is the necessity of attending to physiology, with the aim of improving morality, more obvious than here. The prevention of abuse of the sexual propensity in youth, is also adverted to with becoming earnestness: “Parents must be enlightened, as fast as practicable, in regard to the laws of the human constitution, and the nature of the penalties which follow their disobedience; and awakened to the importance of conversing freely with their children, as fast as their age exposes them in the least degree to the influences which every where surround and threaten them. There are parents who communicate as freely with their children on this subject as on any other; and with the happiest results. The wretched practice of covering up or concealing from the inquisitive minds of the young, many subjects which they desire to look into, and the practice, still more wretched, of telling them a string of falsehoods so monstrous that they do not even answer the purpose for which they were intended, and only have the effect to make them pry still more deeply into the hidden mystery, must be abandoned.”

Of Dr Brigham's "Remarks on the Influence of Mental Cultivation and Mental Excitement upon Health," we formerly spoke in terms of high praise; and the very favourable reception which the work has met with from the British public amply sanctions our opinion. Mr Macnish has considerably augmented its value by the numerous notes which he has added. Besides happily illustrating many of Dr Brigham's arguments, he has corrected one or two inaccuracies into which that intelligent physician has been led. Dr B., for example, states that instances have occurred where persons who "had learned but little of a language when young, and had totally forgotten it," were, when in an excited and convulsive state, "able to speak it fluently;" but this, says Mr Macnish, "is evidently a mistake. That a person might forget a language entirely, and recover it when the brain became morbidly excited, is perfectly authenticated; but that he in this state should speak *fluently* a language of which he formerly knew *but little*, is manifestly impossible. The utmost that disease of the brain can do in recalling knowledge, is to restore to us what we have actually lost: no degree of cerebral excitement can give us what we never previously possessed." P. 88. Some errors are pointed out, p. 98, in the authorities on which Dr Brigham relies for his statements regarding the comparative mortality in different places; but we have not room to go into details.

Mr M. refers to Phrenology in the following terms:—"The gross error committed by parents of over-working the brains of their offspring, had its origin in that false system of philosophy which has existed from the time of Plato to the present day, and by which the mind is regarded as a separate entity, having no sort of communion with, and being nowise influenced by, matter. If Phrenology do nothing else than dispel this preposterous idea, it will accomplish much. Had this science been discovered, and its principles acted upon, a thousand years ago, what grievous errors in education, what incalculable injury to the brain, would have been avoided; and what a mass of splendid talent, which has been employed in bootless metaphysical speculations, might have been profitably turned into more useful channels! So long as people were ignorant of the fact, that in this life the mind works through the agency of material organs, no rational views of education, and of the true method of preserving the health of the brain, could be entertained. Many writers before the time of Gall, knew, indeed, the intimate relation existing between mind and matter; but it was the science of Phrenology, first propounded by him, which turned the public mind strongly and practically to this important point, and will doubtless, in time, work a thorough change in public sentiment, and be attended with the most happy results."—P. 42.

The following case, mentioned by Mr Macnish on p. 17, is interesting in a phrenological point of view. "I know a gentleman, who, in consequence of excessive over-working of his brain during the composition of a French and English dictionary, lost the memory of words for a considerable time. His knowledge of French, German, and Italian, which was very extensive, disappeared from his mind as if by enchantment, and did not return till the brain had its usual energy restored by quiescence."

The last work named in our title is that of Dr Reynolds on the Necessity of Physical Culture to Literary Men,—originally a discourse delivered before the students at Andover Theological Seminary. It is clear, sound, and forcible, and excellently calculated to serve the end in view—the incitement of theologians to strengthen their bodies, with the two-fold object of invigorating their minds and fitting themselves for professional labour. After alluding to the arduous mental exertions which a faithful performance of duty requires from clergymen, Dr Reynolds proceeds—

"It is one of the great evils of this state of things, that the Christian minister is exposed to continual danger; that his efforts, noble and praiseworthy as they are, may occasion injury to his health, which will render them abortive. In the ardent pursuit after knowledge, he is too apt to neglect the body; and to overlook the fact, that the mind, while united with the body, partakes of all its infirmities.

"It becomes, therefore, a question of unspeakable importance, how he may be a faithful servant, and so use the mind as to secure all its powers to the best advantage, and for the longest time, in the great work of Christian benevolence.

"This can only be effected by a judicious and practical attention to physical education. Such a course must be adopted in regard to diet and exercise, as is conformable to nature, and calculated to establish that perfect harmony of action between the body and mind which is necessary to the health and vigour of both—in other words, such habits of life as will render learned men healthy men.

"The man whose position in society demands of him great mental effort, should make the acquisition of this knowledge one of his first lessons; otherwise, he is continually exposed to dangers, which may sooner or later paralyze his efforts. Until he has learnt this lesson, he cannot fulfil the high duties which he owes to society and to his Master in heaven. I would almost say, that the scholar who cultivates the mind exclusively to the neglect of the body, as effectually buries his talents in the earth, as he does who cherishes the body and neglects the mind. Plato calls that man a *cripple* who exercises the mind

and neglects the body. How many of Plato's cripples have belonged to the army of the cross, encumbering its march, and bearing like so many dead weights upon its efforts; men with minds formed to soar to heaven, and wield the elements of the moral universe; but chained down by neglected bodies to inactivity and disease! How often has Zion been called to weep bitter tears over these disappointed hopes! The mind thus used, or rather abused, becomes weakened by the very means which were intended to strengthen it."

In order that the dangers to which the health of literary men, and especially of the clergy, is exposed, may be successfully met and resisted, they must, as Dr Reynolds justly observes, be seen and understood. "A faithful examination of the structure and uses of the human body,—the intimate connexion existing between the body and the mind,—and the reciprocal action of one upon the other in health and disease—will alone reveal the source of these dangers and supply the remedy." He then proceeds to shew the necessity of bodily exercise, and to expound the principles by which it ought to be regulated, the mode in which its beneficial effects are produced, the debilitating influence of bodily disease upon the mind, and the fact that "neither the body nor the mind is capable of attaining the highest point of perfection, until both are brought into full action." He adverts to the reciprocal influence of the brain and stomach, and to the derangement of the digestive functions caused by unremitted study. Such derangement, as we shewed in the outset, tends to weaken the whole body, and no part more evidently than the brain. At this stage, consequences the most lamentable ensue. "There is a more intimate relation between the powers of the mind and the morals, and the health of the body, than is commonly supposed. The body, when injured to a certain extent by mental exercises, begins to react upon the mind, and produces the most deplorable consequences. The memory becomes impaired, the ideas confused, and the power of thought is broken. The elastic spring of the soul is weakened. Pusillanimity usurps the place of that moral courage in a man, which could meet every trial with firmness; the cheerfulness which shed its sunshine over his path is no longer seen; the spirits are dejected; every difficulty appears insurmountable; every effort depresses. Overcome with the common duties of the day, he lies down at night, but not to repose. Extreme irritability of the nervous system drives sleep from his pillow, and happiness from his heart. The voice of friendship falls powerless upon the ear; the love of God kindles but a momentary feeling in the palsied soul. Is this the man who shall lead on the armies of the cross, and successfully repel the machinations of its great enemy, when, prepar-

ing for a last desperate effort, he has arrayed himself as an angel of light? With how much reason did the ancients, when they beheld such a picture, also conclude that the stomach was the seat of the soul! In giving it that location, they, at all events, discovered habits of accurate observation, which it would be the part of wisdom in us to imitate. The man who bestows all his care upon the brain, and leaves the stomach to chance, may find, when too late, that he has neglected a friend whose place no other can supply."

It gives us much satisfaction to observe, that, in the theological seminaries of the United States, workshops are becoming common, as the means of strengthening the bodies and preserving and improving the health of the students, and (what is frequently an object of no mean importance) of adding to their pecuniary resources. The "Mechanical Association of Andover Theological Seminary" was first established in 1827. Its object, as stated in the constitution, is "the promotion of health and vigour both of body and mind, by a regular system of mechanical exercise." It has the use of a large four-story building, affording room for about seventy work-benches, which are usually all occupied. The work done is for the most part joiners' and cabinet-makers' work. "A superintendent of the workshop is employed, a practical mechanic, whose duty it is to make all purchases of stock and sales of the work. But his chief business is, to plan and prepare work for the shop; so that every student, on arriving at his place, may find his task before him, and be able to begin his labour at once, without loss of time. It is regarded as a very important principle in the management of the institution, in order to secure the highest utility of it, that every student, when in the shop, shall be fully and actively occupied; and, when out of the shop, shall have no further care nor thought about it. At present, the time spent in labour is daily three quarters of an hour before dinner, and the same interval before evening prayers. There are a number of monitors; and every person who is absent or comes in late, is subjected to a small fine. The Association is open to all members of the seminary, so far as there is room; and any member may leave it at pleasure. The effect of this institution upon the general health of those who have been connected with it, has hitherto realized the highest expectations of its patrons." Similar institutions exist in other parts of America, and will certainly arise in Britain as soon as ignorance and prejudice give way to reason and common sense.

We cordially go along with Dr Reynolds in regarding attention to physical education as a *solemn duty* of the clergy. "It is a subject of vital importance to the church, and cannot be neglected by those to whom its interests are confided, with-

out incurring a responsibility for all the evils which may follow such neglect. The body, as well as the mind, was given to be cultivated for the glory of the Creator. "Know ye not, brethren, that your bodies are the temples of the living God?" And shall the temples of God be permitted to decay through negligence or sloth, and no guilt be incurred? Health is a talent intrusted to our care, which cannot with impunity be buried in the earth. He who squanders it, throws away a treasure of inestimable value, and will be answerable for the consequences. For every opportunity of doing good which is thus lost, for every degree of activity of which it deprives him, and for years of usefulness of which the church is thus deprived, he must be called to give a solemn account. How much sin does he accumulate, who, having enlisted as a soldier or leader in the cause of Christ, renders himself, by neglect, wholly or in part unfit for duty! Who can calculate his guilt, or estimate the vast amount of good which he might otherwise have effected? At the day of judgment, I fear it will appear, that many who thought they were doing God service, were robbing the church, and defeating the purposes of Heaven, by shortening the life, and impairing the powers, which had been bestowed for their advancement.

"The clergy often reprove their hearers for indifference and neglect, while listening to the most solemn truths. The principles which I have attempted to set forth in this discourse, when considered in all their possible relations to the great cause of Christian benevolence, are very solemn truths. May I not then call upon them, on this occasion, to practise as well as hear; and to beware lest they also fall into the condemnation of those who are 'hearers only, and not doers of the word!'"

ARTICLE XIII.

BIOGRAPHY OF THE BLIND; or LIVES OF SUCH AS HAVE DISTINGUISHED THEMSELVES AS POETS, PHILOSOPHERS, ARTISTS, &c. By JAMES WILSON, who has been Blind from his Infancy. Third Edition. Sold only by the Author. 1834. 12mo, pp. 300.

THIS is a very interesting work, independently of the personal history of the author, which to us has particular attractions. His father was a Scotchman, who emigrated to America before the commencement of the Revolutionary War. The author was born in Richmond, State of Virginia, on the 24th of May 1779. His father continued faithful to the British Government, and was ruined. He sailed from New York on

his return to Europe, but died on the twelfth day after the vessel had left the port. The author's mother being in the last stage of pregnancy, the alarm occasioned by her husband's death brought on premature labour, and terminated her existence. He himself was seized with small-pox, and lost his sight. The vessel was driven by stress of weather into Belfast, where he was left a blind helpless orphan, without a friend on earth, and dependent entirely on the compassion of strangers. Captain Smith, the master of the vessel, acted with admirable generosity. "In order to prevent the author from becoming a charge to the parish, he deposited in the hands of the churchwarden a sum of money sufficient to pay the expense of supporting him for five years."

He was kindly treated by a good-natured old woman, to whose care he was committed, and recovered his health. "Shortly after this," says he, "my right eye was couched by the late Surgeon Wilson, and, in consequence of this operation, I could soon discern the surrounding objects and their various colours. This was certainly a great mercy; for though the enjoyment did not continue long, yet the recollection of it affords me pleasure even to the present day. One day, however, when about seven years of age, as I crossed the street, I was attacked and dreadfully mangled by an ill-natured cow. This accident nearly cost me my life, and deprived me of that sight which was in a great degree restored, and which I have never since enjoyed." We lately examined the author's head, and found his organ of Colouring exceedingly deficient. A mask of him was taken, and is sold by Mr O'Neil.*

A few years afterwards, he was employed to carry letters to and from the offices of the different merchants in the town and neighbourhood. "In the course of time," says he, "my sphere was enlarged, and often, on important business, I have borne dispatches to the distance of thirty or forty miles." The organs of Locality are very largely developed in his head.

He attempted to learn music, but with no great success; yet sufficiently well to charm the rustics at dances. He found himself exposed to great temptations to immorality in this vocation, and gave it up.

When about fifteen years of age, he began to pay some attention to books, and being obliged to listen to what others chose to read, his first instruction was derived from Jack the

* When Mr Combe lately lectured in Glasgow, Mr Macnish and he visited the Asylum for the Blind in that city (an admirably conducted institution under the benevolent direction of Mr Alston), and observed that this organ was depressed in all the inmates who had been born blind. Dr Spurzheim made the same remark in other asylums. Mr Combe pointed out two adult individuals in whom the organ was not deficient, and the matron said that both of them had only *recently* lost their sight.

Giant-killer, Valentine and Orson, Robinson Crusoe, and Gulliver's Travels. Then came novels and romances, and then politics. "The more," says he, "I committed to memory, the more I found it was capable of receiving and retaining." "I knew the names, stations, and admirals of almost all the ships in the navy, and was also acquainted with the number, facing, and name of every regiment in the army, according to their respective towns, cities, or shires, from which they were raised. I served, of course, as an army and navy list for the poor in the neighbourhood, who had relations in either of these departments, and was capable of informing them of all the general news." He repeated, on occasion of a bet between two gentlemen, the names of 620 ships in the British navy, and was proceeding when he was stopped; the bet having been decided when he reached 500. He became an author and wrote verses, some of which he says are still extant.

In 1800 he was received into the Asylum for the Blind, then instituted in Belfast. He there learned the trade of an upholsterer, and afterwards practised it on his own account. The following passage is exceedingly interesting:—"In 1808, a number of young men formed a reading society in Belfast, and although they were all mechanics, yet were they also men of taste, and some of them were possessed of considerable talents. Into this society I was admitted a member, at the same time I was kindly exempted from the expense attending its regulations. One of the members was a man of the most extraordinary character I had ever known, and therefore I attached myself to him. To good nature, he united an original genius, a good taste, and extreme sensibility; and had an early education been his lot, or had his mind been sufficiently expanded by study, he would have become an ornament to society. This man proposed to read to me, if I would procure books: our stated hour for this employment was from nine o'clock in the evening until one in the morning, in the winter season, and from seven until eleven in the summer. When I was not particularly engaged, I frequently attended him at other intervals: at breakfast he had half an hour allotted to him, at dinner a whole hour. Every minute of this was filled up, for he generally read to me between every cup of tea; and by this means I committed to memory a vast collection of pieces, both in prose and verse, which I still retain, and which has been, until the present hour, a never-failing source of amusement to me. The more I heard read, the more my desire for knowledge increased, while I learned at the same time that

'The more a man knows, he finds he knows the less.'

"So ardent and steady was my desire for knowledge at that time, that I could never bear to be absent a single night from

my friend, and often when working in the country, where I could have been comfortably accommodated, I have travelled three or four miles in a severe winter's night to be at my post in time. Pinched with cold, and drenched with rain, I have many a time sat down and listened for several hours together, to the writings of Plutarch, Rollin, or Clarendon. For seven or eight years we continued this course of reading; but to give a catalogue of the authors we perused in that time, would be foreign to my present purpose; suffice it to say, that every book in the English language which we could procure, was read with avidity. Ancient and Modern History, Poetry, Biography, Essays, Magazines, Voyages, Travels, &c. were among our studies."

He was advised to marry, and addressed a copy of verses to a young woman who was remarkable for her filial piety. They had the desired effect, and for thirty-two years he has lived happily with her in the bonds of matrimony. He now travels through the United Kingdom selling the "Biography of the Blind," at 5s. 6d. a copy, and we hope that many of our readers will purchase it.

His temperament is bilious-nervous; his head is large; and the organs of Individuality, Size, Weight, and Locality, are very much developed. The constant and very vivid exercise of these organs seems to have caused them to attain a larger size than probably they would otherwise have reached; while the organs of Colouring are very obviously stunted in their dimensions, from want of exercise. His eyes have suffered so much from disease, that it is difficult to judge accurately by their appearance of the size of the organ of Language; but it appears to us to have been well developed. The extraordinary cultivation of it, joined to his favourable temperament, which gives at once strength and sensibility, and the aid afforded by his large Individuality, account for his extraordinary powers of memory. He is modest and intelligent in conversation, and altogether is a very interesting person.

ARTICLE XIV.

THE PRESBYTERIAN MAGAZINE, May 1836. Edinburgh: Waugh and Innes.

THE writer of a review of Mr Combe's work on the Constitution of Man, in this Number of the Presbyterian Magazine, seems to think that he has dealt a deadly blow at the whole fabric of Phrenology. Had the system contained within it no greater principle of vitality than would have enabled it to survive the present attack, it must have been in its grave long

since ; but it has successfully stood the shock of many a more rude encounter, and from antagonists better qualified to contend with it, from *some* knowledge at least of the use of the weapons that they were wielding ; and yet here it stands, more vigorous and flourishing than ever.

The reviewer, like most anti-phrenologists who have preceded him, goes back to their joint-stock set of arguments which have been refuted both here and elsewhere *usque ad nauseam*, and again brings them forth with as much assurance as if they had proceeded fresh from his own brain—we beg pardon—his heart—or his foot perhaps. It will hardly be expected, therefore, that we are again to travel over ground so repeatedly trodden. To do so would be like telling a thrice-told tale—wearisome to ourselves and unprofitable to our readers. Here is a sample of what we allude to.

The reviewer, speaking of Mr Combe's work, says, that it fosters "the perishing—the unsatisfactory—the short-lived pleasures of the present life." Now, will it be credited that this is the reviewer's deliberate opinion of a work of which it is hardly possible to open a page, without perceiving that its whole scope and tendency are to point out the necessity of obeying the laws of God, and of producing (to quote Mr Combe's words) "the perfect Christian character,"—with "affections glowing with gratitude to God and love to man?" Again, the reviewer, on p. 181, quotes a long passage from Dr Prichard's Essay on Temperament, to prove that Phrenology has always an outlet, in case of its professors being hard pressed. This quotation, says the reviewer, "sets the question at rest, so far as facts are concerned ;" and this, too, he says with as much *sang froid* as if Dr Prichard's Essay had been unanswered and unanswerable. He either knew, or ought to have known, that the question was set "at rest" in a very different manner from what he mentions, in the eighth volume of this Journal, p. 649. But in fact the reviewer reminds us of a favourite mode of reasoning of some of our fair friends, who, after an insurmountable answer has been given to the point which they wish to carry, without being anything daunted, give the go-by to demonstration, and with an exclamation of "Poh ! nonsense," or "Tut," return to the charge, like the reviewer, as if their "Tut" contained volumes of logic. And in truth they act with much tact in doing so, well knowing that their logic is unanswerable. If the reviewer's logic is not quite so impregnable, we shall at least give him the full benefit of our fair friends' mode of arguing, and shall only at present touch upon such points as appear to require any notice.

The conduct of divines has been *ab initio* singularly imprudent in bringing religion into direct collision with philosophy, or,

since that expression is suspiciously regarded, with physical science. Look at the result of the attack made by the church on the doctrines of Galileo. What was the solemn decree pronounced by a conclave of its most distinguished members? These are the memorable words:—"That to maintain the sun to be immoveable and without local motion in the centre of the world, is an absurd proposition, false in philosophy, heretical in religion, and contrary to the testimony of Scripture; and it is equally absurd and false in philosophy, to assert that the earth is not immoveable in the centre of the world, and, considered theologically, equally erroneous and heretical."

Now, on the principle laid down by the reviewer, viz. that true Christians "will not allow revelation to be tested by philosophy, but insist on philosophy being tested by revelation,"—on this principle the conclave was right and Galileo wrong; because it is the "plain dictate" of the Scriptures that Joshua commanded the sun to stand still, leaving the world from that period down to the time of Galileo, of course in their original belief, that the sun literally rose and revolved round the earth, and which must of necessity have been considered a doctrine of Scripture, until the investigations of science proved the reverse. But were it laid down in Scripture even ten times more plainly than it is, we would ask,—Is it in the power of a modern astronomer to believe that the sun goes round the earth, and that the earth "is immoveable in the centre of the world?" Nay, though we could imagine an angel to appear to denounce his doctrine as erroneous,—could he, whilst pointing to the sublime proof of his science, which the world will have stood in wonder and admiration to gaze at ere these observations see the light—could he disbelieve what the highest reason proclaims to be true? Utterly impossible. How unwise, then, to dash religion recklessly against philosophy—in fact to attempt to make one part of God's revelation contradict another.

In like manner, when the truth of Scripture and the truth of geology were pronounced by divines to be irreconcilable, what a crisis for religion when the world found that what they heard called the immutable truth of the Bible, was compelled to fall back before the discoveries of science!

Unwarned by such lessons—not content with seeing Scripture (by their miserable abuse of its sacred purposes) forced to recoil from the shock with physical science—the clergy seem obstinately determined, for the third time, to risk the people's belief in religion, by making it appear to depend on the proof of the untruth of the facts on which Phrenology rests. With a disregard of past experience entirely unexampled, and by an unphilosophical mode of proceeding not less extraordinary, they lay it down that philosophy is to be tested by revelation, instead of

being tried by facts. But further, the reviewer insists upon testing philosophy by his own narrow sectarian interpretation of revelation—an interpretation that is perhaps scouted on the other side of the Tweed, and certainly is so on the other side of the English Channel. In fact, we may very easily form an estimate of the reviewer's qualifications for coming to a sound decision on the merits of Phrenology, Geology, or any modern branch of science, when we find him indulging at the present day in such blind bigoted adherence to error, as to call the professors of geological science "those great bores of philosophers—the geologists."

The reviewer says, "We do not profess to be profound in anatomy." He might have saved himself the trouble of announcing so palpable a truth, as his want of qualification to enter upon the discussion of such a subject as the present, is as clear as any declaration of his own could make it. Take an example of his profundity. After labouring to make out (with what success our readers may imagine) that the brain is not proved to be the "instrument" of the mind, and that only a "connexion" exists between them, he says, that "a similar connexion might be shewn to exist between the mind and various other parts of the bodily system besides the brain, and these might with great reason be termed organs of mind." Only conceive a man sitting down to write a review of a system founded entirely on a knowledge of the functions of the brain, and utterly ignorant of the fact that all the "other parts of the bodily system" trace their power of exhibiting life and action up to the general medullary mass! "Profound in anatomy," indeed! "Profound in ignorance," might we not rather say? After this he adds, "But this part of the theory (the action of the mind through the brain) is unworthy of farther consideration"—fit conclusion to so profound an argument.

The period at which the review in question comes out, "astonishes us beyond measure." The reviewer, in noticing Mr Combe's proposal that religion should be wedded to philosophy, says, "If this mean Phrenology, in the name of Heaven we would forbid the banna." Truly it is somewhat late in the day to think of forbidding the banna, when the two have been allowed to live together for eight years, and to be so often introduced to the people as one. This may perhaps be the received mode of proceeding in the *Irish church*, but it sounds somewhat oddly from the "*Presbyterian Magazine*." If nothing could be expected from such "unhallowed nuptials," but "a progeny of monstrous and mis-shapen heresies, half philosophical half religious,"—in the name of reason and common sense, why did the reviewer, or "the advocates of true religion," not shew "just cause or impediment" in 1828, when the banns were proclaimed?

Why was not the warning given, the tocsin of alarm sounded, before the people were allowed to receive them as united in the bonds of holy wedlock? Why were the public permitted to receive edition after edition of this "dangerous" work, this "poisonous article," as the reviewer admits, "unnoticed and unanswered by those who profess themselves the guardians of public morals, and the advocates of true religion?" Why were the people allowed to drink deeply of its doctrines, to hear them lauded from one end of the country to the other, without one whisper of disapprobation from those who so clearly saw their tendency, as the reviewer says, "not only to sap the foundations of Christian doctrine, but to explode vital religion altogether, and substitute in its place the speculations of a dark deistical and damnable fatalism." Truly we may exclaim, in the reviewer's own words, "It has astonished us beyond measure," that he and the other "advocates (!) of true religion," should silently allow the people to imbibe for years a work described by him as being—if not printed and published—at least composed by "the Prince of Errors," whom he regards as the undoubted author of "the whole book," which he looks upon "as forming part of a deep-laid scheme" by the said Prince!! * Where were the guardians of public morals all this time? Were they, like Rip Van Winkle, sleeping comfortably, crying "A little more slumber, a little more folding of the hands to sleep?" Or did they, like the people of Lilliput, entertain a wholesome distrust of their power to put down the great "man-mountain" of Phrenology, having already found how easily it had snapped asunder the slender threads with which they had attempted to pin down the system? If the reviewer's opinions of Phrenology are sound, it would hardly have been possible even for the "Prince of Error" himself to have composed a more bitter satire upon the "advocates of true religion," than the reviewer has done. But if the "Prince" is to have some hand in the argument, we think the reviewer affords most legitimate ground for inferring either that the royal author has administered a potent sleeping draught to these "advocates;" or else that the Review, having so grossly libelled them, has been dictated by the Prince as part of the "deep-laid scheme." For our own parts, we are unwilling to suppose the guardians of public morals to have been guilty of such base dereliction of duty as the words of the reviewer imply—we would judge

* Mr Combe is thus reduced to a mere amanuensis. This view must doubtless be new to most of his readers, who, in their innocence, never suspected that they possessed a volume by so ancient and distinguished an author as the one pointed out by the Reviewer. But this view, however novel, may be defended by the analogy of the old proverb, that "the devil sends cooks" to destroy our physical food; and what more probable than that he should wish to have a finger in poisoning our moral food also?

more charitably, and give the natural interpretation to their silence by believing that they, like the people at large, take a rational view, and see the book in its true character. But how can the Reviewer shelter himself under this plea? He, at least, admits that he had, as he verily believed, penetrated the "deep-laid scheme" of the black prince "to sap the foundations of Christianity, and explode vital religion altogether;" and yet he fails to prove he had ever—nay, he leads us to infer that he had never—divulged to the world the dire design!—Surely this was the hireling fleeing from the sheep, and allowing the wolf to devour the flock at leisure. Let him settle this with his own conscience the best way he may—we suspect "the still small voice" will be trumpet-tongued.

We confess that the thought of the "Prince of Error" (we do not much like to speak of him in more familiar terms) has moved us much. We shall henceforward look suspiciously into the shop of the publishers of the Constitution of Man, though we should be curious to see Mephistophiles in *propria persona*—so universal a traveller would doubtless be quite a lion—and, by-the-by, since the publishers have, as the Reviewer says, "paraded extracts from the work in their popular journal," who knows but that the "popular journal" itself may also be part of the "deep-laid scheme?" It can hardly be supposed that such a powerful engine would be lost sight of by so long practised a schemer as the Prince. In fact, this seems to follow as a corollary to the position laid down by the Reviewer; for, if the book itself be a well of poisoned waters, the said journal must be as sixty thousand poisoned streamlets flowing weekly through the land, though believed by the simple-minded public to be pure crystal streams. The *Weekly Chronicle*, too, must be another *atra Styx*; and those "great bores of philosophers, the "geologists," as well as modern astronomers, must come in for a share of the "scheme," as aiding and abetting in spreading sciences held by divines to be contrary to the "plain dictates" of Scripture: in short, there is no saying how far the deadly influence may extend. It may be urged, doubtless, that the aforesaid popular journal has been for years as a stream of living water, giving health and vigour to both mind and body; and, as the same wholesome water still continues to flow, that the Prince would not be so simple as to dilute his own arguments with morality and sound knowledge;—but what of that? Has not the Constitution of Man done the same? This may be puzzling; but if the "scheme" could be read running, it would no longer be "deep-laid." Mystery is the soul of a scheme; and, though the whole may be right contrary to sound reason—reason must of course bow and believe.

From the observations which have been made, the reader will

be enabled to judge of the enlightened views that pervade the Review. If we have been unable to preserve our gravity, the blame lies with the Reviewer, who has upset it. We trust it is unnecessary to guard ourselves against the supposition that we are amongst those who believe that science is contradictory of Scripture, soundly interpreted. Our main object having been to point out the lamentable folly of bringing religion to oppose physical science, as well as to expose some of the inconsistencies and absurdities of the Reviewer, we have only touched incidentally on Mr Combe's work—first, because we consider a reference to itself to be the best answer that could be given; and, secondly, because, even if the author treated the exhibition of the Reviewer in a more serious light than we do, it would of course rest with himself to perform what to us appears entirely a work of supererogation. Indeed, what need of defending a work indirectly sanctioned by the silence of the “advocates of true religion” for so many years, and welcomed by the country from one end to the other (not to speak of Germany, France, Sweden, and America), as a gift worthy of a philosopher to bestow, and of the lovers of truth to receive.

ARTICLE XV.

AN INTRODUCTION TO PHRENOLOGY, IN THE FORM OF QUESTION AND ANSWER. WITH AN APPENDIX AND COPIOUS ILLUSTRATIVE NOTES. By ROBERT MACNISH, Author of “The Anatomy of Drunkenness,” and “Philosophy of Sleep,” and Member of the Faculty of Physicians and Surgeons of Glasgow. 12mo, pp. 186, 1836. Glasgow: John Reid & Co.; Oliver & Boyd, Edinburgh; and Whittaker & Company, London.

THIS is an excellent little work, and its success has already been so great, that any commendation of it by us is nearly superfluous. It was published on 18th March 1836, and above 1500 copies of it have been sold at the time when we write, in the middle of May. It is an original composition, and not a mere abstract or compilation from previous books. It partakes of the clearness and vivacity which characterize Mr Macnish's other writings; and it is distinguished by great correctness of doctrine.

The preface contains a brief but interesting account of Mr Macnish's own conversion to Phrenology: “My first ideas of Phrenology,” says he, “were obtained from Dr Gall himself, whose lectures I attended in Paris during the year 1825. Before that time, I, in common with almost all who are ignorant of the subject, spoke of it with great contempt, and took every op-

portunity of turning it into ridicule. The discourses of this great man, and various private conversations which I had the honour of holding with him, produced a total change in my ideas, and convinced me, that the doctrines he taught, so far from deserving the absurd treatment which they then generally met with, were, in themselves, highly beautiful, as expositions of the human mind in its various phases, and every way worthy of attention. Much reflection, and many appeals to nature, since that period, have satisfied me of their perfect truth."

He proceeds to give an outline of the history of the science, and concludes the preface in the following words. "In whatever way we view this science, its tendency is excellent. It is eminently useful to the medical practitioner, by turning his attention forcibly to the state of the brain and whole nervous system, in a state of health and disease—to those who have the charge of lunatics and criminals—to those concerned in the administration of justice—to parents, in the intellectual, moral, and physical management of their children, and, in short, to every class of society. Grievous errors in education, in the treatment of malefactors, and in what are called mental diseases, are constantly committed, from ignorance of the light thrown by it on those important subjects. A science which is able to accomplish all this cannot be a trivial one; and Time, the great arbiter, will yet render it ample justice, when every thing which has been said and written against it is utterly forgotten."

The work commences with an exposition of the principles of Phrenology, which embraces a great deal of valuable information, condensed into a short space, yet clearly written. It next gives an account of the various propensities, sentiments, and intellectual faculties, with their uses and abuses. Many new and instructive cases are recorded in this part of the work, and the notes are particularly valuable. The next section relates to the "Temperaments," which are well expounded. The last section is headed "Miscellaneous Questions;" a title which gives no idea of the subjects discussed. These are—The order in which the faculties first display themselves;—the contiguity of those organs which generally assist each other (as Causality and Comparison, Time and Tune, Combativeness and Destructiveness, and so forth);—the causes of mental precocity;—the influence of the constitution of parents on that of their children;—the causes why some individuals are much liked by some, and hated by others;—the causes of strong and permanent likings and antipathies;—the causes why the same individual is liked as a servant by one mistress, and disliked by another;—the effects of difference in the size and combination of the organs on the agreement or disagreement of husbands and wives. We quote the following as specimens of this section of the work.

"What does eccentricity arise from?"

"From a want of due balance in the faculties. If one organ or more, is large in proportion to the others, or in a state of high activity, it will produce that irregularity of character to which the term eccentric is applied. Eccentricity frequently degenerates into madness.

"Some persons possess an unbounded flow of animal spirits; and a hilarity which nothing can subdue: from what does this proceed?"

"From great activity of brain, accompanied often with deficient prudence and reflection, and a large development of Hope, Ideality, and Wit.

"What is the cause of such activity of brain?"

"It is constitutional, and generally accompanied with a high Sanguineous Temperament.

"When an organ is much exercised, have we ever pain in the site of it?"

"Very often. Hard-thinking produces a sense of fulness or pain in the forehead, the seat of the reflecting organs. In excitement of Amativeness, there is frequently a sense of heat at the nape of the neck. When there exists a strong desire to travel, pain is sometimes felt in the region of Locality,* and in cases of spectral illusions over the perceptive organs.

"What is the cause of spectral illusions?"

"These phenomena depend on a morbidly excited state of some of the perceptive organs, such as Form, Size, or Colour; whence images are presented to the mind without the co-operation of the external senses. If the organ of Form, for instance, becomes as strongly stimulated by some external cause, as it would be by an object presented to it by the eyes, some image or other will be formed, and the person will actually believe he sees what in reality has no existence. Morbid affections of the nerves of sight seem to have the same influence in producing spectral illusions.

"Is the feeling of hunger experienced, strictly speaking, in the stomach?"

"No. The term 'craving of the stomach,' so often used

* "A young lady," says Dr Gall, "had always a great desire to travel. She eloped from her father's house with an officer. Grief and remorse undermined her health. I attended her, and she made me remark two large prominences which, she said, the pain she had endured had caused to grow on her forehead. These excrescences, which appeared to her the consequences of divine wrath, were in fact the organ of Locality, to which she had never paid any attention." To this I may add, that a lady of my acquaintance, in whom the organ of Philoprogenitiveness is very largely developed even for a woman, and whose love of children is extreme, informs me, that when distressed or anxious about her family, she experiences pain at the back of the head, just over the seat of the organ. Heat in the nape of the neck is a common attendant of excited Amativeness.

to express hunger, is not in reality correct. The brain is the craver, and is excited to a craving state only by emptiness of the stomach, unless the organ of Alimentiveness be so large, or so stimulated by some internal morbid action, as to need no such excitement; or unless disease be present in the stomach, so as to transmit to the brain the sensation which, during health, is transmitted by inanition alone.

"People are sometimes afflicted with imaginary voices speaking to them: can you account for this?"

"It may be explained in the same way as apparitions. There are unquestionably certain parts of the brain which take cognizance of sounds: we call the nerve of the ear the organ of hearing, but, strictly speaking, it is not: it is merely the medium for conveying sounds to the brain, where the true organ resides. Now, suppose that the portion of the brain appropriated to this sense is stimulated by some internal cause, in the same way as it is by real sounds conveyed to it by the nerve, the person will have the idea that he hears, and that often as distinctly as if subjected to the stimulus of actual noise. Fanatics and deranged people sometimes imagine they hear angels, and even the Deity speaking to them, and persons perfectly deaf have at times sensations as of voices addressing them, just as the blind are occasionally haunted by spectral illusions. All these phenomena are explicable upon the principles just mentioned."

The subject of Dreams is next discussed; and, after them, Insanity—the origin of motives—the characteristics of criminal brains—the effects of different kinds of food on the activity of the brain—memory—the analysis of envy, selfishness, indolence, jealousy, hypocrisy, credulity, incredulity, impudence, frivolity, presence of mind, religious melancholy, &c. Power and activity, and national brains, are also discussed.

There are a very few minor points on which we do not entirely agree with Mr Macnish: but only one—his explanation of the fact, that "some people are characterized by strong and permanent likings and antipathies,"—deserves to be noticed. "It arises," says he, "mainly from a great development of Destructiveness and Firmness. If they take a liking to any person, the former gives it warmth, and the latter endurance; and the same with regard to their antipathies." We confess ourselves unable to perceive how Destructiveness affects the warmth of either likings or antipathies. It only produces hatred of those who, by some other faculty, are disliked. Self-Esteem dislikes rivals, Love of Approbation calumniators, Acquisitiveness those who do what is adverse to our pecuniary interest, and so on.

The work concludes with the following question and answer,

"What is the main object of Phrenology?"

"This is made sufficiently apparent by the whole tenor of the

preceding pages, and hardly admits of a condensed reply. It may be stated briefly, that the purpose of the science is to give man a knowledge of himself, to point out the true method of studying the mind, and of directing and applying its energies to proper uses. Phrenology is a study which tends eminently to virtue; in particular, it teaches toleration and mutual forbearance. By demonstrating the natural variety of human dispositions and talents, and the innateness of our strongest motives, it loudly urges us to judge charitably of the actions of others, and to make allowance for their imperfections—to lay upon no individual more than he is able to bear, and to desist from the mad attempts which have so often been made to assimilate to one common standard the opinions of the whole community. On the philosophy of education, and on the treatment of criminals and the insane, phrenology throws a flood of light.”

The Appendix contains, No. I. An account of the mode of designating the relative size of the different organs. No. II. A Phrenological analysis of the Character of George Campbell, executed for murder. This is an exceedingly interesting case. No. III. Another case in which natural dispositions and talents were inferred from a cast of a head. This also is curious and instructive. No. IV. Cases of simultaneous change of character and form of head. No. V. contains extracts from an interesting paper by Mr Robert Cox, published in our 9th volume, entitled, “Observations on the mutual Influence of the Mental Faculties.”

On the whole, we are proud of the addition of Mr Macnish to the list of phrenological authors, and regard the present work, in point of interest and utility, as quite equal to those by which he has already established a well-founded literary and philosophical reputation in Britain and America.

ARTICLE XVI.

1. TESTIMONIALS ON BEHALF OF GEORGE COMBE, as a Candidate for the Chair of Logic in the University of Edinburgh. John Anderson, jun., Edinburgh: Longman and Co., and Simpkin, Marshall, and Co., London. 1836. 8vo., Pp. 167.
2. THE SUPPRESSED DOCUMENTS; or an Appeal to the Public against the Conductors of the Scottish Guardian. By GEORGE COMBE. Glasgow: John McLeod. Edinburgh: John Anderson, jun. 1836. 8vo. Pp. 14.

It is not usual for candidates for professorships to *publish* their testimonials; but as those of Mr Combe relate much more to Phrenology, and the estimation in which it is held by men of talent in different parts of the United Kingdom and on the con-

tinent, than to himself, he has put them within reach of all who take an interest in the science. The testimonials are so strong and numerous, that we are not surprised to learn that they have astonished many who previously thought Phrenology too absurd to merit serious consideration. In fact they have taken by surprise not a few even of the phrenologists themselves. Prefixed to them is the following address by Mr Combe to the Lord Provost, Magistrates, and Council of the City of Edinburgh :—

“ 23 CHARLOTTE SQUARE, EDINBURGH,
“ 10th May 1836.

“ MY LORD PROVOST AND GENTLEMEN,—On the 9th of April last I addressed a letter to the Right Honourable the Lord Provost, offering myself to the Patrons of the University as a Candidate for the Professorship of Logic, then declared vacant; and I now very respectfully submit to your consideration some Testimonials on which my pretensions to fill that chair are founded. As I aspire to this honour on account of my exertions in maintaining, diffusing, and applying a new doctrine, which has not yet been admitted into any of the older Universities as science, I beg your indulgence while offering a few observations on the points on which the testimonials have been chiefly designed to throw light. But, before entering on these topics, I am anxious to call your attention for a moment to the history of the reception of other important discoveries by the ages to which they were first disclosed.

“ Professor Playfair, in his historical notice of discoveries in physical science, published in the Supplement to the Encyclopædia Britannica, observes, that ‘in every society there are some who think themselves interested to maintain things in the condition wherein they have found them. The considerations are indeed sufficiently obvious, which, in the moral and political world, tend to produce this effect, and to give a stability to human institutions, often so little proportionate to their real value, or to their general utility. Even in matters purely intellectual, and in which the abstract truths of arithmetic and geometry seem alone concerned, the prejudices, the selfishness, or the vanity of those who pursue them, not unfrequently combine to resist improvement, and often engage no inconsiderable degree of talent in drawing back, instead of pushing forward, the machine of science. The introduction of methods entirely new must often change the relative place of the men engaged in scientific pursuits, and must oblige many, after descending from the stations they formerly occupied, to take a lower position in the scale of intellectual improvement. The enmity of such men, if they be not animated by a spirit of real candour and the love of truth; is likely to be directed against methods

by which their vanity is mortified, and their importance lessened.'*

"The treatment experienced by Galileo and by Harvey is too well known to render it necessary for me to recapitulate it here; but, at a later age of the world, the discoveries even of Sir Isaac Newton met with a similar reception. Professor Playfair, speaking of the announcement of the composition of light by that distinguished philosopher, says: 'Though the discovery now communicated had every thing to recommend it which can arise from what is great, new, and singular; though it was not a theory, or a system of opinions, but the generalization of facts made known by experiments; and though it was brought forward in a most simple and unpretending form; a host of enemies appeared, each eager to obtain the unfortunate pre-eminence of being the first to attack conclusions which the unanimous voice of posterity was to confirm.'†

"These observations are applicable to Phrenology. Professor Andral, one of the most distinguished physiologists of France, remarks, that this science also 'must pay the usual tax of entry; some one must be put to inconvenience in its progress, and few persons are fond of being set aside. It has, moreover, the great fault of being younger than those it claims to enlighten; but let it alone, and it will throw all obstacles behind it with marvellous force.'‡

"One of the greatest reproaches that have hitherto attached to established Universities, is their pertinacious adherence to erroneous opinions after they have been abandoned by the general judgment of enlightened men. This has led a distinguished author to compare them to 'beacons moored in the stream of time, which serve only to mark the rapidity with which the tide of civilization is flowing past them.' It is a characteristic feature in the constitution of the University of Edinburgh, that its Patrons do not belong to the class which has generally brought upon itself the condemnation of resisting important discoveries; but to one engaged in the active business of life; one which, although not boasting of a scientific character itself, possesses intelligence sufficient to appreciate the value and to understand the direction in which the currents of science are flowing, and which therefore is more open to the adoption of new truths than are those learned bodies, which cease to oppose improvements only when their individual members who have been educated in exploded opinions cease to exist. 'Truth,' says Mr Locke, 'scarce ever yet carried it by vote any where, at its first appear-

* Part ii. p. 27.

† P. 56.

‡ Extrait du Discours prononcé à la Séance Annuelle de la Société Phrénologique de Paris, par M. le Professeur Andral, Président. Avril 1835.

ance. New opinions are always suspected, and usually opposed without any other reason, than because they are not common. But truth, like gold, is not the less so, for being newly brought out of the mine. 'Tis trial and examination must give it price, and not any antique fashion; and, though it be not yet current by the public stamp, yet it may, for all that, be as old as nature, and is certainly not the less genuine.'

"The Logic Chair, as hitherto taught in the University of Edinburgh, has embraced the study of the intellectual faculties of the mind and their applications; and, regarding it as the junior class for mental philosophy, I proceed to point out the bearing of the accompanying testimonials on the subject of appointing a new professor.

"Phrenology professes to be the science of mind, discovered and matured by observations made on the manifestations which accompany the cerebral organs in a state of great development or deficiency, both in health and in disease. It possesses, therefore, two distinct characters: 1st, That of the Science of Mind, considered apart from its connection with organs; and, 2dly, That of the Physiology of the Brain.

"The following individuals certify that Phrenology, viewed as the abstract science of mind, is superior to any system of mental philosophy which has preceded it, namely—His Grace the Lord Archbishop of Dublin, late Principal of St Alban's Hall, and Fellow of Oriel College, Oxford, and who, by his works on Logic and Rhetoric, has established a right to be regarded as the highest British authority on this subject, p. 5;—Dr Barlow, p. 4;—Sir George S. Mackenzie, p. 7;—Dr Macnish, p. 15;—Dr Evanson, p. 20;—Dr Gregory, p. 21;—Professor Nichol, p. 23;—Captain Maconochie, p. 24;—Dr A. Combe, p. 25;—The Hon. D. G. Hallyburton, M. P., p. 49;—Professor Longfield, Dublin. Appendix, p. 50;—Charles MacLaren, Esq. p. 57;—Robert Chambers, Esq. p. 55;—The Hon. Judge Crampton, p. 63, &c. &c.

"The following individuals certify that Phrenology contains a true exposition of the physiology of the brain, viz. The most distinguished medical authorities in Paris, pages 28 to 33;—Dr Wm. Weir, p. 36;—Dr Mackintosh, p. 45;—Dr Elliotson, p. 47;—Richard Carmichael, Esq., Appendix, p. 3;—John Fife, Esq. Appendix, p. 8;—Alexander Hood, Esq. Appendix, p. 2;—Dr Robert Hunter, Appendix, p. 34;—Dr James Johnson, p. 67, &c. &c.

"Assuming that these certificates afford as satisfactory evidence of the nature and truth of Phrenology as can be obtained without personal investigation, the next object which I have aimed at establishing is, that it is useful. Lord Bacon inferred that the Philosophy of Aristotle was false because it was barren;

and the same rule of judging would lead to a similar conclusion regarding the philosophy of mind as hitherto taught in the established universities. It has served as a kind of mental gymnastics for exercising and sharpening the intellectual faculties of students ; but it has been found inapplicable to the elucidation of insanity, education, the treatment of criminals, or almost to any purpose which a sound philosophy of mind should subserve. Phrenology claims a superiority over it in each of these particulars. Its doctrines, like those of all other natural sciences, are at once simple and profound. The moralist, the physician, the legislator, and the teacher, are able to draw from it lights to guide them in their practical duties ; while, to the student who boasts of a penetrating and adventurous intellect, it affords scope for indulging in the most recondite researches and refined analysis.

“ The following certificates will inform you of its application in discriminating the varieties of insanity :—Sir William Ellis, p. 12 ; W. A. F. Browne, Esq. p. 10 ; S. Hare, Esq. p. 35 ; A. Mackintosh, Esq. p. 53 ; H. A. Galbraith, Esq. Appendix, p. 39 ; Dr James Scott, Appendix, p. 13 ; D. Mackintosh, Esq. Appendix, p. 20 ; &c. &c.

“ The following testimonials will prove the bearing of Phrenology on the classification and treatment of criminals :—George Salmond, Esq. p. 42 ; Dr Otto, p. 65, Appendix, p. 23 ; Dr Vimont, Appendix, p. 32 ; Mr William Brebner, Appendix, p. 39 ; &c. &c.

“ And the following will inform you of its application to the purposes of education, viz. :—Mr A. J. D. Dorsey, p. 34 ; and Mr William Hunter, p. 51.

“ In addition to testimonials from persons of station and of philosophical eminence, I have procured several from individuals in various ranks and employments, with the view of shewing that the true philosophy of mind is calculated not exclusively to adorn palaces and academic halls, but also to recommend itself for its truth and utility to intelligent men of every grade. The pupils who attend the logic classes are the sons of such persons, and partake of their mental qualifications.

“ Two other points of importance for your consideration are, the extent to which it has already prevailed, and the probability of its future progress to general acceptance as the true philosophy of mind. An accurate opinion on these subjects can be formed only by a careful perusal and consideration of the whole documents annexed. In the letter from Robert Ferguson, Esq. M. P., p. 18, you will find its history briefly sketched from the year 1799 to the present day. In the letters of James Simpson, Esq. and Thomas Wyse, Esq. M. P., you will observe evidence that the Legislature is drawing upon it for lights in education ;

in the letters of Charles Maclaren, Esq. and Robert Chambers, Esq. you will see the opinions entertained of it by two eminent conductors of the periodical press; and in the letters of Dr Weir, p. 86, Dr Hunter, p. 51, Dr Evanson, p. 20, Dr Mackintosh, p. 46, and Dr Elliotson, p. 47, you will find that it is actually taught as established science in several great and flourishing institutions for medical education. In the certificates from the French capital, p. 28, from Dr Gregory, and Dr Otto of Copenhagen, you will see evidence which leads to the presumption that it is on the eve of being admitted into foreign universities as the science of mind and the physiology of the brain; and only now, in all probability, will the honour be within your reach, of being the first to recognise its claims, and take the lead in doing homage to its merits.

“In regard to my pretensions as an individual, I wish to say little. I appear before you as the humble representative of a great system of natural truth, and wish to be estimated by its merits alone. If Phrenology be at once a system of mental philosophy and of the physiology of the brain, and if during nearly twenty years I have not only incessantly studied it under these aspects, but publicly entered the field of controversy with every respectable opponent, combating the metaphysician with arguments, and the physiologist with facts, it may reasonably be inferred, that my intellectual faculties have acquired some training that may conduce to the successful teaching of the Logic class.

“I may perhaps be permitted to claim also the quality of moral intrepidity, in having braved the ridicule with which Phrenology was assailed for many years; and if by the exercise of this attribute I shall be recognised hereafter as having in any degree benefited mankind, I shall feel contented, whatever your decision may be.

“In 1819, when the all but unanimous voice of society was directed against Phrenology, I ventured to publish a book in its defence. I was then unknown in literature, destitute of influence, and entirely dependent on my profession for the means of subsistence. Many prophetic warnings were offered to me of the utter impossibility of my aiding the cause in any appreciable degree, and of the perfect certainty of my own ruin, both as a professional man and as an author, by the insane attempt. Nor were willing instruments wanting in this city to give effect to these unfavourable auguries. For several years the wit of the talented conductor of Blackwood's Magazine was directed against Phrenology and its adherents; Sir William Hamilton lectured and wrote against it with all the subtlety and keenness for which he is distinguished; while Lord Jeffrey directed the full force of his refined raillery, acute argumentative talents, and

great reputation, to its extinction. In other cities course was pursued. In Edinburgh, the enlighten'd Scotsman long stood singular as its defenders in press. I am far from insinuating that any talents sufficed to stem the mighty torrent of ridicule, abuse, and contempt, by which Phrenology was assailed. I was only a humble among many able and efficient advocates ; but I do claim the merit of having hazarded all that the human mind—fortune, reputation, and friend-ship—could be made to sacrifice for the cause, at a time when that cause appeared to the world to be desperate. I have never repented the sacrifice I then made ; and the Testimonials themselves which the cause has called forth, are to me more than an adequate compensation for all that I may have hazarded and sacrificed in defence.

“ I forbear to press on you my own qualifications as a lecturer. The certificates will speak sufficient points.

“ I expect still to receive a few testimonials from other cities, which I shall take the liberty to present before the next election. I have added, as an Appendix, some bearing on the truth of Phrenology, presented by Mr Mackenzie to the Right Honourable Lord Glenelg to the Colonies, in relation to the application of it to the classification of criminals. It will be seen, from the certificates, that the greater number of them were written before the Logic Chair occurred ; and to them I respectfully solicit your attention.

“ I have to apologise to you for the great length to which the testimonials have extended, as well as for their miscellaneous nature ; but unless I could bring forward not only *positive* evidence, that Phrenology is entitled to be received as science, I conceive that my claim to it would be inadequately supported.

“ I beg also to mention, with the utmost respect for my intention to trouble you with a personal appeal, that I regard you as judges, exercising a solemn and important duty delegated to you by your fellow-citizens for the purpose, and I should feel it to be as unbecoming to solicit votes, as to request a judge privately to vote in my favour as a litigant. If any of you desire to assist me for the sake of obtaining additional information, I feel a pleasure in waiting on you ; but, unless requested, I assume that you approve of my present resolution to refrain from a personal application.

“ It is my intention to publish these Testimonials on a subject of general interest, and by this means

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the Department of Pathology and of Surgeons of the Medical and Veterinary College, of Montreal, making the following statement :—
"The study of the mind and disease, the progress of the phrenology, is the true basis of the science of medicine. It will be found the true basis of Logic."

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propriety by those who have deeply

impression his philosophy made upon me, and, above all, the important results which must follow from a general system of education connected with it. When his views first attracted public notice, the able, the talented, and the enlightened attacked them, without deigning to inquire into their truth, because they were an easy prey for playful and ignorant criticism; but I am glad to find that they have been followed up by able and scientific pupils, and that they at last have gained a footing which must advance, and which cannot now retrograde."

Dr Richard Tonson Evanson, M. R. I. A., Professor of the Practice of Physic in the Royal College of Surgeons, Ireland, gives the following opinion:—"In Phrenology, we find united the best exposition of the moral sentiments, and the most approved metaphysical doctrines heretofore taught, while it surpasses all former systems in practical utility and accordance with facts; being that *alone* which is adequate to explain the phenomena of Mind. This opinion I am emboldened to pronounce, not merely as my own conviction, but as that which I have heard expressed by some of the most scientific men and best logicians of the day."

Professors Broussais, Bouillaud, Jules Cloquet, and Ferrus, of Paris, and Drs Richard, Robertson, Fossati, Sanson (Ainé), Vimont, Gaubert, and Voisin, of the same city, with several other eminent individuals, "will derive much satisfaction from seeing the Logic Chair filled by a man imbued with the phrenological doctrines; for Phrenology being, in their opinion, the most certain and complete science of the faculties of man, they consider that a good system of logic cannot be more firmly based than upon the profound study of that science."

Dr W. F. Edwards, F. R. S., Member of the Institute of France, is of opinion, that "The relation between mind and body is by far the most interesting subject of investigation. These two elements of human nature had been the object only of separate study, except to some physicians, with a view to mental alienation, when Gall directed all the efforts of his sagacious and powerful mind to this question; the vital importance of which, whatever be the fate of his theory, none can deny."

Alexander J. D. Dorsey, Esq., Master of the English department in the High School of Glasgow, has found Phrenology of great utility in his profession. "As education," says he, "properly considered, aims at the proper development and regulation of *man's nature*; as it is, therefore, absolutely essential to a teacher's success that he should have a *GUIDE* to the knowledge of *that nature*; and as Phrenology appears to me not only the plainest, but the most satisfactory *guide* yet dis-

covered, it is my decided opinion, that he who teaches and *trains* upon phrenological principles, will experience a constantly increasing attachment to his profession, will invariably secure the affectionate esteem of his pupils, and will, as a necessary consequence, succeed in giving them a thorough EDUCATION, moral, intellectual, and physical. I write this not in a theorizing spirit, but from several years' extensive experience."—"In History, the use of Phrenology is truly valuable. In fact, till I knew something of this beautiful system of mental philosophy, I never taught History properly, or, I may add, any thing else." A similar statement is made by William Hunter, Esq. A. M., late Professor of Logic in the Andersonian University, Glasgow, and present teacher of the classical department in the Grammar-School of Paisley.

Dr William Weir, Lecturer on the Practice of Medicine at the Portland Street Medical School, Glasgow, formerly Surgeon to the Royal Infirmary, and one of the Editors of the Glasgow Medical Journal, says, "Being myself firmly convinced, after many years' study of the subject, and numerous observations, that Phrenology is the true philosophy of the mind, I have taught it, in my lectures delivered to medical students, as the correct physiology of the brain; and I consider it impossible to give a proper view of the functions of the brain on any other but phrenological principles. In my lectures on the practice of medicine, also, I have, during the last five years, applied the principles of this science towards the elucidating the nature and treatment of Insanity."

Dr John Mackintosh, Surgeon to the Ordnance Department in North Britain, Lecturer on the Principles of Pathology and Practice of Physic, Fellow of the Royal College of Surgeons of Edinburgh, Member of the Medico-Chirurgical and Wernerian Natural History Societies of Edinburgh, of Montreal, Heidelberg, and Brussels, makes the following statement:—"The more closely I study nature, in health and disease, the more firm are my convictions of the soundness of the phrenological doctrines. I regard Phrenology as the true basis of the science of mind, and as such am persuaded it will be found highly conducive to the successful teaching of Logic."

The Honourable Judge Crampton, formerly Fellow and Professor of Law in Trinity College, Dublin, is "persuaded that Phrenology is amongst the most important of the acquisitions made to the stock of modern knowledge, and that upon it must be based every sound system of philosophy."

Dr James Johnson, Physician Extraordinary to the King, and editor of the Medico-Chirurgical Review, says, "I have long been convinced that the science of *mind* can only be understood and taught properly by those who have deeply

studied the structure and functions of its *material instrument*—the *brain*. I am convinced that, in this world, mind can be manifested *only* through the medium of *matter*, and that the metaphysician who studies mind independent of its corporeal organ, works in the dark, and with only half of his requisite tools. Without subscribing to all the details of Phrenology, I believe its fundamental principles to be based on truth."

Appended to Mr Combe's Testimonials are a number of others, which Sir George Mackenzie had collected for the purpose of satisfying Lord Glenelg, Secretary for the Colonies, that Phrenology might be advantageously employed in the classification of convicts sent to New South Wales. Sir George's attention was strongly called to this subject by a horrible slaughter recently committed on his sons' estate in that country. These certificates are equally strong with the others; and we are prevented only by want of space from quoting several of them. Their number is upwards of forty, and among the writers are found some of the most eminent medical teachers and practitioners in the United Kingdom.

With regard to "The Suppressed Documents," it is sufficient to say, that, *The Scottish Guardian*, a Glasgow newspaper, having, in a notice of the candidates for the Logic Chair, made certain misrepresentations as to Mr Combe's lectures on moral philosophy last winter, and the reception which they met with from the audience, he sent to the conductors a reply to these misrepresentations, with two "documents" in its support—namely, a letter on his views respecting the corruption of human nature and the sanctification of the Sabbath, which he had written to a member of the Town-Council of Edinburgh; and a report (previously published in *The Edinburgh Chronicle*) of his concluding lecture on moral philosophy, referring to an attack made upon the teachers of science in the prospectus of *The Scottish Christian Herald*. These documents the conductors of the *Guardian* refused to publish, *even as advertisements*; so that Mr Combe was under the necessity of issuing them in the form of a pamphlet.

MISCELLANEOUS NOTICES.

EDINBURGH.—Mr Combe's lectures on Moral Philosophy, founded on Phrenology, were brought to a close on 21st March. The number of holders of tickets admitting to the course was 514, besides whom 495 visitors were admitted at 1s. each. Mr Simpson terminated his lectures in the Cowgate Chapel in April, on which occasion he was presented by the audience with a silver medal, bearing an appropriate inscription. Mr Sidney Smith is at present engaged in delivering a course of weekly lectures on Phrenology in the same chapel. The admission fee continues to be one penny.

GLASGOW.—A desire having been expressed by many gentlemen of this city, that a course of lectures should be delivered by Mr Combe, a requisition to him to do so was subscribed in a short time by upwards of 120 names. In consequence he gave fourteen lectures on Phrenology in April last. These, says the secretary of the committee, "were attended each night by audiences of upwards of five hundred, a portion of whom were ladies. The audience comprised the most respectable classes of the city, and among them many of our most talented citizens.—The applications for tickets for single lectures could not on many occasions be fully supplied, and had a larger hall been attainable previous to the commencement of the course, a considerable addition to the regular class would have been got.—Each lecture lasted upwards of an hour and a half, and the audience throughout manifested great interest in the subject; and few, I believe, have seen so large a body of ladies and gentlemen listen with so much eagerness to lectures on any of the sciences as was done during the whole of Mr Combe's course."

MONTROSE.—On Friday 29th April, Mr W. A. F. Browne concluded a course of lectures on Phrenology, delivered to the members of the Mechanics' Scientific Institution. Six prizes were distributed to the most successful competitors in the phrenological class.

LAUDER.—Letter to the Editor from Mr William Tait, Surgeon, dated Lauder, 28th April 1836:—"It gives me much pleasure and satisfaction to be able to inform you, that the desire for information on Phrenology in this district is still on the increase. Before the winter of 1835 the subject was scarcely heard of; and the principles of the science were, by the very few who had heard or read of them, treated with ridicule and disdain. It was easily discovered, on talking over the subject with any of those who hazarded an opinion regarding the claims of the science, that they were grossly ignorant of them, and probably had never read any of the standard works upon the subject. To this I am the more inclined to adhere, as some of them confessed that all their information on the subject was presented to them through the distorting medium of the Edinburgh Review. It is but justice to the inhabitants of this town to say, that now they have given the subject a fair hearing. You are aware that I delivered a short course of lectures last year, which were attended by about twenty-four persons, principally mechanics. I was still desirous that they should be better informed concerning the principles, and I undertook a second course of eight lectures this spring, which were attended by upwards of forty individuals, some of whom were the most respectable persons in the town and neighbourhood. At the conclusion of the course, Mr John Romanes, town-clerk, expressed his approbation of the course I had pursued in bringing the subject under their notice, and the satisfaction he had experienced while attending the lectures; and, in the name of all those who honoured me with their attendance, returned thanks for the trouble and exertion I had put myself to in their behalf. He farther stated his willingness to defray the expenses incurred by the present course, and expressed a hope that I would again, next winter, resume the task, when he would be most happy to attend. The results of these lectures are very encouraging. The Mechanics' Library has got two copies of Combe's Constitution of Man, and one copy of his Elements of Phrenology. Considerable attention is now paid to Phrenology, theoretically and practically, and many are true converts."

LIVERPOOL AND MANCHESTER.—In April Mr James Simpson, advocate, was invited by the Educational Committee of the Town Council of Liverpool to give there a course of lectures upon Moral and Educational Philosophy. A similar invitation was received from Manchester. He has complied with both, and in each town his lectures attract numerous audiences. In Liverpool the morning course is attended by 150 ladies and gentlemen, and the evening course by upwards of 400. In Manchester his audience, when we last heard of him, was 600, and always increasing. His committee had procured for him the lecture-theatre of the Mechanics' Institution (the Ath-

neum), a hall which has never before been given for the use of a public audience. His first lecture was delivered in the Court-room, Brown Street; but it was immediately felt that more ample accommodation would be required—a conclusion fully justified by the event. The lectures, we observe, are highly spoken of in the Manchester and Liverpool journals. Mr Simpson has received invitations to lecture in Birmingham and several other large English towns; but we understand that his engagements will not permit of compliance with them at present.

YORK.—On Saturday evening last (13th February), Mr Sandwith of Beverley, surgeon, gave an interesting lecture upon the science of Phrenology at the York Dispensary, which was attended by a numerous auditory. He traced the rise and progress of the science from 1796, when it was discovered by Gall, to 1800, when it was further elucidated by Dr Spurzheim; and subsequently noticed at great length the labours of that eminent man, in the pursuit of his favourite study. The lecturer expressed his strong opinion in favour of the science; and, by the aid of moulds and casts, explained the anatomy of the brain, and the development of the organs, with their situations. He noticed the attacks that had been made upon this science by the Edinburgh Review, which had described it as trash, despicable trumpery, and quackery from one end to the other. This attack had been ably answered by Dr Spurzheim, in the reviewer's own lecture-room, in a manner which called forth the warmest approbation. In France the science was making rapid strides, and most of the eminent French physicians were now members of the Phrenological Society in Paris; although, at one period, this science having received the opposition of Napoleon, the whole profession set their face against it. He also noticed a variety of other opponents against whom it had grappled; and related at great length the immense accumulation of facts in favour of the science, collected by the inspection of prisons, schools, hospitals, colleges, and palaces, and a strict examination of the formation of the heads of distinguished individuals. The lecturer then described the seat of the several organs, and the order in which they were arranged. In conclusion, he decanted at some length upon the great advantages, moral and physical, which it was calculated to confer upon the human race, and trusted that his arguments would be fairly and candidly considered by his auditors. An animated debate ensued, in which Dr Wake, Dr Belcombe, Dr Rawdon, Mr Russell, Mr Newman, and Mr Tate took part. The former of these gentlemen, whilst he was willing to admit that the brain was constituted of several organs, and was not one entire organ, still was sceptical as to the organs being so particularly demonstrated on the skull as was alleged by the phrenologists. He also expressed his dissent from the system adopted by Dr Spurzheim, in examining the patients at the York county asylum. Dr Wake accompanied him there, and he was surprised to find that Dr Spurzheim made inquiries as to the peculiarities of the patients, before he gave any opinion from observation of their heads; and then his opinion always concurred with the information he received.—Dr Belcombe opposed the system of Phrenology on two grounds; 1st, That the anatomy of the brain, as described, was wrong; 2d, That no standard was fixed, by which they could ascertain to what size the organs of Destructiveness, Veneration, or any others, should be developed. He also deprecated the system, as having a tendency to materialism.—Dr Rawdon observed that the simple propositions of Gall had been refuted; but its present advocates had hedged it in by uncertainties; consequently the more the science advanced to maturity, the more obscure it had become.—The lecturer replied to the arguments advanced against the science, and cited cases in which Dr Spurzheim had given his opinion without any previous information; which opinion had always been correct. A vote of thanks was given to the lecturer, and the meeting separated.—*Abridged from the Yorkshire Gazette, 26th February 1836.*

DONCASTER.—In February last, a keen phrenological controversy took place at the Lyceum here. The science having been attacked in a lecture by the

Rev. Mr Bromley, Mr J. L. Levison, a week afterwards, delivered a lecture in reply. The room was on both occasions crowded to excess. Mr Levison's observations lasted more than three hours, and we have seen a long report of them in the *Doncaster Gazette*. A discussion of the arguments advanced by both lecturers took place on Friday 26th April, and is fully reported in the *Gazette* of 4th March. Mr Bromley, who spoke first, charged Phrenology with the sin of leading to fatalism and subverting human responsibility. He maintained that the chemical composition of the brain and spinal marrow is the same, and "thence inferred that it was out of analogy, and unphilosophic, to give reason, sentiment, and moral disposition, to a substance in the cranium, and deny them to the same substance in the vertebrae." Various other objections, equally conclusive, were urged by Mr Bromley and others. A discussion then ensued as to whether Mr Levison should reply forthwith, and it was finally resolved to adjourn to the following evening, Saturday the 27th, at seven o'clock. The discussion was accordingly resumed on Saturday evening, when the room was again filled with members, whose interest in the subject appeared to suffer no abatement. After a long debate, it was moved that farther argument on Phrenology should be adjourned *sine die*. This motion was met by an amendment, that the future consideration of the subject should be referred to the Committee; which was carried by a small majority. The thanks of the meeting were given to Mr Levison, and at eleven o'clock the members separated.

NEWCASTLE.—On the evening of Thursday the 5th May, in compliance with the requisition of the Phrenological Society, Mr J. Fife delivered a lecture on Phrenology at the Literary and Philosophical Society. Mr Greenhow, one of the vice-presidents, was requested to take the chair. The room was so crowded that numbers had to return, being unable to gain admittance. The lecturer commenced by observing that he complied with the request of the Phrenological Society, in delivering this public lecture, with some alacrity, because he considered Phrenology a science which taught the system of moral philosophy, most practically useful for the purposes of education, and most satisfactory, as affording a philosophical defence against the doctrines of materialism. He then proceeded to shew, by recapitulating the outline of a former lecture, that, from the earliest periods, mankind had associated ideas of moral excellence with certain configurations of the head, as illustrated by the greatest poets of ancient and modern times, including Homer, Shakspeare, and Milton, and proved that, from the earliest works of the Greek sculptors, down to the latest of the Italian and Flemish schools of painting, artists had been constant to the same principle. Mr F. then referred to the works of Aristotle, of Albertus Magnus, Petrus Montagnana, Ludovico Dolci, D'Aubenton, Blumenbach, and Camper, to prove the gradual progress of the principles of Phrenology amongst philosophers and physiologists. The lecturer next adverted to the discoveries of modern physiologists, including Rolando, Fleurens, Le Gallois, Sir B. Brodie, and Sir C. Bell, shewing that each part of the brain and nervous system had its peculiar and separate function, and then gave a general view of the principles of Phrenology as propounded by Gall, adopted by Spurzheim, and developed by Combe and others; alluding to the persecution of Gall by the Austrian Government, and the cause and character of the prejudices against the theory in this country, even amongst many learned men, who had previously committed themselves by the adoption of other systems of metaphysics; and the lecturer then adduced some ludicrous instances of the abuse of the science by persons whom its practical application had detected and exposed, enumerating, amongst others, a printer, whose character was seen through, and guarded against, in a business-engagement with a publisher well known in the west of England. Mr F. proceeded to prove that the anterior part of the brain had generally been considered by physiologists as necessary to the expression of the intellectual faculties, the upper to the moral, and the lower and back part to the instinctive; he then proved that the brain was the organ of the mind, by referring to the circumstances of sensation, volition, disease, infancy, age, intoxication, stupor from

pressure, fainting from loss of blood, connate idiotism—shewing the support given by Phrenology to *im-materialism*, by accounting for these various defects, on the principle of peculiarity of condition of the organ of the mind rather than change in the mind itself. The lecturer next proved that the mind in its impressions and manifestations acted through separate portions of the brain, and not by the whole, in the exercise of any one faculty. He then refuted some of the objections of Bostock. He then described the wonderful variety in the form of the human brain, as analogous to the diversity of character, talent, and connate propensities; quoting upon the point some of the opponents of Phrenology, and shewing, that although there were great irregularities in the skull, yet there was no difficulty in ascertaining from its form that of the brain, upon which that of the former was actually moulded; in the gradual progress of ossification, and that there must be either gross ignorance or intended imposition on the part of those who argue that “there was no limit to the number of separate organs indicated by Phrenology,” as the protuberances on the human brain and skull were symmetrical, regular, uniform in number, and differing not in situation, but only in proportion. Mr F. spoke with some severity of the ignorance, flippancy, and unfairness of the *Edinburgh Review* in its attacks, or rather satires, on this science, expressing himself gratified in meeting the objections of candid and scientific writers: he then entered at length upon the examination of the objections to Phrenology by its most able opponents, including Bostock and Prichard, in the admirable work of the latter on *Insanity*. The lecturer next pointed out the cause of so much ridicule against Phrenology, as existing in the extreme confidence of many of its professors, who too often attempted practical application of the theory without sufficient study and experience of its elementary principles; and admitted that the science was yet in its infancy, the superstructure and details in many instances yet remaining involved in doubt, and only to be determined by experience. He appealed to the conduct of the professors of Phrenology from Gall to Combe, as proving the candour with which they proceeded; and the eagerness they evinced in availing themselves of opportunities of visiting gaols, lunatic asylums, and other public institutions, for the purpose of making observations, and the open manner in which they conducted them in presence of the officers of the various establishments; and Mr Fife appealed to the audience whether such conduct was like that of men who wished either to delude themselves or to mislead others. Mr Fife lectured without notes, and for an hour and forty minutes he possessed the most eager attention of the audience, who testified their concurrence in the truth of the opinions he inculcated, by frequent expressions of applause.—*Abridged from the Newcastle Chronicle, 14th May 1836.*

SUNDERLAND.—Mr W. J. Dodd, surgeon, has lately delivered a course of lectures on Phrenology in this town. We extract the following notice of one of them from the *Sunderland Herald* of 29th April:—“We think that Mr Dodd was more than usually eloquent on Tuesday night. His delineations of what may be termed the religious organs, veneration, hope, and marvellousness, were excellent. But it is in describing the combined action of the passions, by which such strange mixtures in character are produced, that Mr Dodd principally distinguishes himself. Viewing these addresses merely as metaphysical—putting phrenology with all its bumps, temperaments, &c., out of the question—they must be regarded with interest even by the most heterodox unbelievers. The number of ladies present is very great, generally exceeding more than one-half of the audience.”

BELFAST.—Extract from the *Belfast News Letter*, 19th April 1836.—On the 6th instant, the seventh Public Meeting of the Natural History Society for this session was held, when a lecture was delivered by Dr Andrews on the construction of Electro-Magnets. On this occasion the following donations were presented:—*Specimens of Natural History*—From J. B. Bankhead, Esq. Tullyguilly, a Merlin; Mr James Hannan jun., specimens of the Pinna and of Asbestos, from Shetland; Dr D. T. Hincks, large specimen of Native Amethyst; Mr G. C. Hyndman, Skins of a Flying-Fox, Goatsucker,

Kingfisher, and Maccaw, from New Holland; Mr Robert Patterson, specimens of young *Cirripecta*, taken in Larne Lough.—*Miscellaneous Specimens*.—From Mr Clewlow, impression of the Seal of Turlough O'Neil, found in the county Tyrone; Mr Doisy, New Zealand Flax (*Phormium tenax*) in different states of preparation; James Gibson, Esq. Ancient Sword dug up in the county Down; Mr John Grattan, Casts from the Skulls of Charles and Agnes Clarke, who were executed in Downpatrick, on the 6th of August 1831, for murdering Daniel M'Connell, with the intention of selling his body. An interesting correspondence on the subject between Mr Grattan and Mr Robert Cox, Editor of the Phrenological Journal, was read by the Secretary, extracts from which we subjoin. Mr Grattan sent the casts to Mr Cox, merely stating that they were taken from the skulls of a husband and wife, of remarkable character, who had belonged to the lower class of society, and had been uneducated; and that the man was near eighty, and the woman sixty, at the period of their decease; and he requested from him a sketch of what he would infer their characters to be from their phrenological developments. The following is the substance of Mr Cox's sketch:—"The man violent, passionate, cruel, and vindictive, though able to dissemble his rage; a fellow of such plausibility and hypocrisy, that, in spite of the baseness of his mind, he might long have kept up an external appearance of respectability; fond of authority, and exceedingly vain; humorous; courageous, but very prudent; not easily overreached, except by flatterers; somewhat avaricious, but so extremely fond of applause that he is likely to have spent with considerable freedom; addicted, probably, to the pleasures of the table; in fine, a man whose character might not have been conspicuous for its glaring immorality had he been well brought up; but it was to be feared that little estimable could be expected from an uneducated Irishman with such a head." This compliment to our national character seemed to be duly appreciated, if we may judge by the good-humoured burst of laughter with which it was received. The woman:—"A character the most unamiable that can be imagined; in temper similar to the man, but more reckless in her violence and fury; extremely quarrelsome, obstinate, and intractable; a tremendous scold, and one that would keep all about her in awe and obedience; her prudence and circumspection less than those of the man; extremely fond of children, but prone to treat them harshly when disobedient; very profligate, and her manners coarse, arrogant and brutal; one whose vicinity would be a considerable misfortune to well-disposed persons." A condensed report of the trial was next read, and then the following notes of the actual character of each:—"Charles Clarke, for many years, while under the influence of his brothers and sisters, an apparently respectable character. After their death, became possessed of their wealth, took to drink, and spent all he was worth in the society of a set of profligate parasites. In his later years drunken, brutal, riotous, fearfully blasphemous, and addicted to all sorts of profligacy and vice.—The woman worse than the man; noted from childhood for her coarse and violent temper, and extremely profligate habits; exercised complete controul over her husband; a drunken and desperate virago; fond of her children when sober; remarkable for more acuteness than her husband, but much less cautiousness; never cared what she did—whilst he, at times, displayed some remains of decency. He was remarkable for his low, coarse humour—she for nothing but her brutality; and both were held in such abhorrence as to have been totally shunned by their neighbours, nor could any person be induced even to furnish a cart to remove their bodies from the place of execution." The skulls, we understand, were lent to Mr Grattan by Dr Thompson, surgeon to the county Antrim Infirmary.

CORK.—The course of lectures delivered by Mr Wilson at the Royal Cork Institution was concluded last week, and we are persuaded that we utter the deliberate sentiments of every individual who attended those lectures when we state, that, in each lecture, talent, research, and argument, were abundantly evinced, and that each position laid down by the lecturer was distinctly supported by authenticated facts. The lecture containing the practical

application of the science to educational purposes, was especially interesting and useful. In this lecture it was shewn how Phrenology aids education by pointing out those mental abilities which instruction and exercise may more beneficially develop, as well as by discovering the more dangerous propensities, to the power of which any individual may be constitutionally subject. Considered in this light, the science is of practical value, and is intimately (indeed in the opinion of some **ESSENTIALLY**) connected with the best plan of conducting education:—so strongly do several adopt this opinion, that they consider any system of education as radically defective which acts independently of the aid which phrenological science affords.—*Cork Evening Herald*, 6th April 1836.

PARIS.—Extract from a letter from Dr James Cox, dated Paris, 17th April 1836:—"Dr Broussais has commenced a course of lectures on Phrenology from pure zeal, and the amphitheatre is crowded to suffocation. Two thousand were estimated to have been at the first lecture. Three have been delivered. Never were such crowds seen at phrenological lectures before. The professor who lectured immediately previous to Broussais, finding himself interrupted by the crowds of students who poured in during his lecture to be ready for Broussais, ordered the doors to be bolted on the day following. When the crowd gathered they broke down the doors, and one individual was nearly crushed to death. Indeed no one can attend who has not great strength of ribs. The lectures are very good."

DERANGEMENT OF THE FACULTY OF LANGUAGE.—The case of Janet Whyte, reported by the late Mr William Gibson, surgeon, Montrose, in our 46th Number, p. 515, is commented on by our esteemed contemporary the *Medico-Chirurgical Review*, January 1836, p. 208. "It seems clear to us," says our contemporary, "that it was not the intellectual function that was injured, but the power of directing the tongue that was impaired. The patient said that she knew well enough what words she ought to use, but that she could not get them *expressed*. If the conception and remembrance of language had been lost, she would not have known what words to use..... We make these remarks because loose observations and indefinite statements are seldom of benefit to science." As the report stands, these remarks are unquestionably well founded; but an obvious inconsistency in it affords reason for suspecting that the statement alluded to by our contemporary is inaccurate. For Mr Gibson expressly says, that when the patient began to utter sentences, "they were very unconnected and unmeaning, the different words being either wrong or strangely jumbled together." From this it is evident, that she had the power of *expression*, and that the defect was in the *faculty* of Language alone. In order to get at the bottom of the matter, we communicated this suspicion to Mr W. A. F. Browne of Montrose, and added the following request: "Could you conveniently see the woman, and ascertain what she exactly meant by saying that she knew perfectly what words ought to be used? Probably she told Mr Gibson that 'she knew the words perfectly, but somehow could not recollect them;' just as we say of any person that we are sure we know his name, but cannot recollect it at the moment." Mr Browne's reply, dated 25th April 1836, is satisfactory and conclusive. "On Saturday," says he, "I had a long conversation with Janet Whyte, the subject of Dr Gibson's short paper. Her statements confirm your opinion, and are as follows. She was seized with headach, which she knew continued for some hours, but subsequently to this she lost all consciousness. She remained insensible and speechless for some days. She then recovered so far as to recognise objects, but she could not yet name them. On attempting to do so, she could speak with perfect ease,—that is, she could pronounce words; but she failed in applying the words to the things signified, in selecting the words requisite to express her meaning. For instance (the illustration is her own), she could distinguish her husband from a chair, but she could not *name* either the one or the other. She repeatedly and distinctly averred to me and Mr C. Watson, that this difficulty arose from her total inability to *recollect* the proper *terms*, and not from her inability to *utter*

them. What places the truth of this beyond a doubt is, that she still occasionally labours under the same affection. She cannot conjure up words to express her meaning, and is obliged to leave her sentences incomplete. What classes of words are thus forgotten she could not tell. Her husband, whom I likewise examined, corroborated all that she communicated. Both parties are highly respectable, and their testimony may be relied upon."

CIRCULATION OF BLOOD IN THE BRAIN.—Nearly twenty years ago we had frequent opportunities of witnessing some interesting phenomena in a robust young man, who lost a considerable portion of his skull by an accident, which had almost proved mortal. When excited by pain, fear, or anger, his brain protruded greatly, so as sometimes to disturb the dressings, which were necessarily applied loosely, and it throbbed tumultuously in accordance with the arterial pulsations.—*Medico-Chirurgical Review*, October 1835, p. 366.

THE "TIMES" ON THE PHRENOLOGISTS.—Dull-witted and half-educated men always seek some by-way of notoriety, having just sagacity enough to discover that they have no chance of acquiring any reputation in the regular field of art and science. Among the most offensive of these quacks may be classed the phrenologists, or "bumpologists," as they are more appropriately called. Everybody knows what blunders these blockheads made over a supposed skull of Raphael, which turned out to be the head of a gravedigger; and we have already noticed some impertinent trash which has been poured forth respecting the skull of Dean Swift, which was pulled from the body and subjected to the scrutiny of these pedantic dunces. We see in more than one quarter that this disgusting folly is still at work: we cannot waste our time nor that of our readers by any detailed exposure of the absurdities which have been published, but we give one specimen as a decisive sample of the rottenness of the bulk. These worthies, then, have discovered, and are ready to prove, by the size of the "organs of wit and ideality" in Swift's skull, "both small," to adopt their jargon, that the world must be totally mistaken about the Dean of St Patrick's, and that the author of the *Tale of a Tub* and *Gulliver's Travels* had neither brilliancy nor originality! And there are gaping simpletons who swallow these crudities, and call them science!—*Times* of 30th December 1835.

EDINBURGH PAUPER LUNATIC ASYLUM.—We have been favoured by Dr Smith, the physician to this establishment, with a copy of his Report upon it for the years 1833-4-5, and have perused it with much interest and satisfaction. We hope that his strong representation of the defects of the asylum will induce the managers to adopt immediate measures for providing a new establishment, more in keeping with the advanced state of some other asylums for pauper lunatics in Britain. The following passages are extracted from the Report:—"The leading feature in the management is humanity, and a ready attention to whatever is likely to promote the recovery or alleviate the distress of the patients. A system of mild yet firm discipline is maintained, which, with the great regularity observed in the various domestic arrangements, exerts a soothing and salutary influence over the minds of the patients: in confirmation of which I may mention, that it is not uncommon to have, out of sixty-eight patients (the average in the establishment), not one under restraint. And in proof of the humane and kind treatment exercised towards the patients, instances are occurring from time to time of their returning to the asylum to express their gratitude for the attention they had experienced."—"The patients are furnished with properly selected books, and they are encouraged to amuse themselves at different games. The women are employed in sewing and knitting, and assist in the work of the house. The want of employment for the male patients is much felt. But not the least improvement is the introduction of public worship into the asylum; this measure, which was adopted at the suggestion of Dr Brunton and Mr Johnston in October 1827, has proved a source of great comfort and consolation to the patients selected to attend. And as my further experience goes to strengthen the favourable opinion expressed on this subject in former reports,

I would take the liberty of repeating it, by saying, that, through the introduction of public worship, a due respect for religion is not only kept up, but a power is brought into action, which seems capable of calming in a wonderful degree the disturbed and troubled feelings of the irascible maniac,—of breaking in upon the fixed despondency of the despairing melancholic, and of interrupting for a period the mazy reveries of the confirmed lunatic; and that therefore attendance upon public worship is to be viewed as a powerful means in the cure of insanity, and one from which much benefit is to be expected.”—“The proportion of the cures is considerably greater in the females, being at the rate of forty in ninety-six, or about forty-two per cent.; whilst amongst the males it is only as twenty in eighty-six, or twenty-three per cent. This disparity may, I think, be accounted for from the disease in females being often of a milder character, their greater sensibility of constitution rendering them more liable to be acted upon by slighter exciting causes, the effects of which are less permanent and more easily removed, whilst at the same time the disease in them is rarely combined with apoplexy, epilepsy, and palsy. The women have likewise the advantage of occupation, which the men have not.”—“Opium in full doses has been found to answer well in many cases of insanity, accompanied with feelings of dread on account of some supposed impending calamity, after fever and irritation had been subdued. By keeping the patient under the influence of it for several days, the train of incoherent and false ideas seems to be broken, and very often the patient is convalescent by the time the effect of the opium has gone off.”

MODESTY OF THE LITERARY GAZETTE.—The following letter has been addressed by Mr Combe to the Editor of the *Literary Gazette*:—“*Edinburgh, 23d May 1836.* Sir,—In your number ‘ONE THOUSAND,’ you say that ‘We could, were we vain enough to wish it, make a list of those (the authors whose first works we encouraged by our praise), with our comments on their upspringing from the shades of obscurity, which would be a remarkable document. On the contrary, we could oppose it by another list of those it has been our painful duty to censure and condemn; often when upheld by the most influential of our contemporaries: and we would put the challenge, Where are they now? Where honest, just, impartial, and fearless criticism set them at once; and whence no favour or delusion can ever raise them more, even for a moment.’ Allow me to mention, that I have the honour to belong to the class of authors whom you have ‘fearlessly condemned, ridiculed, and abused,’ from my first publication in 1819 to the last; but you will judge by the testimonials which I herewith send you, whether your criticism was as ‘honest, just, and impartial,’ as it was fearless; and whether I am where ‘you set me,—in the shades of oblivion. I am,” &c.

We understand that the second volume of Dr Vimont's *Treatise on Human and Comparative Phrenology* is now either published or on the eve of being so. This work, with its splendid atlas, has been reprinted in Brussels, at about one-eighth of the original cost. Messrs Carfrae and Son, South Bridge Street, have favoured us with a sight of the Brussels edition. The plates, though not quite equal to the originals, are very good, and such of them as we have compared with those in the Paris edition are, with one exception, perfectly accurate. We are no admirers of the system pursued by the Brussels printers, of thus unfairly competing with French authors; but having learned from good authority that nearly the whole of the Paris edition of Dr Vimont's work has been sold, we trust that the cheap reprint will not be materially detrimental to his interest. The plates are excellently adapted for illustrating lectures, and every phrenological society ought to be in possession of them. We shall review the work as soon as the second volume is received.

Owing to a press of matter, it has been found necessary to add a sheet and a-half, or twenty-four pages, *extra limites*, to our present number. Nevertheless several articles intended for it are postponed till our next.

Edinburgh, 1st June 1836.

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ARTICLE I.

INSANITY AND CRIME.

THE progress of civilization in the present age, is strikingly indicated by the energy with which the generous and humane feelings of society act in favour of slaves, factory children, criminals, the poor and destitute, and, in short, of all who suffer, and have no efficient protectors. There still remains a wide field for the exercise of enlightened philanthropy, in shielding the insane from many unnecessary sufferings ; and, although this is a subject to which we have adverted before, it may be useful again to solicit the attention of our readers, for a brief space, to the condition of that unfortunate class of persons.

Questions of insanity come before courts of justice in various forms. One individual is accused of crime, and his defence is mental derangement : another has executed a deed, which his relatives attempt to set aside on account of defect or disorder of judgment : a third wishes to exercise some privilege, as tutor to a minor, and is passed by because he is insane. Judges, juries, lawyers, and witnesses, act a part in deciding the fate of these unfortunate men ; and yet, when we inquire what qualifications they possess for forming a sound judgment, we find that they are avowedly ignorant of the philosophy of mind in a state of health, unacquainted with the effects of organization on the mental powers, and strangers to the causes and appearances of their derangement ;—in short, they are unprepared by previous knowledge and experience, for giving a decision which is to affect the life, character, and property of the individual who is brought before them, and to involve the disgrace or respectability of a whole circle of relatives.

These remarks are illustrated by many cases that have been brought before criminal courts of late years, both in France and

in Britain ; and which, if considered at all in a right frame of mind, and with a sense of the deep interests involved in them, would not fail of arresting public attention to the serious evils arising to society from the existing ignorance of every thing connected with mind. Instead of wondering at the discrepancy of opinion as to the mental condition of the accused, which so generally presents itself at every trial, unanimity or consistency seems to us to be in such circumstances a moral impossibility.

In any other department of knowledge, it would be thought preposterous to expect a valuable opinion, on which life, character, and property might be staked, from persons who had never made the subject their study ; yet so deep is the obscurity in which the whole science of mind, sound and unsound, is involved, that the contradictory testimony and opinions of learned physicians, divines, lawyers, and others, given before courts of justice in questions of lunacy, instead of exciting regret, shame, and mortification, mingled with feelings of compassion, actually call forth ridicule, without any one advancing to the conclusion, that there is moral culpability in discountenancing and obstructing, by such levity, the serious subject of a study so painfully interesting to mankind.

We have been led to these reflections particularly by the cases above alluded to, of which we now proceed to lay the details before our readers.

I. In November 1821, the Court of Assizes at Metz was occupied with the trial of JOHN SCHMITT, a parricide. The details of the crime were of the most revolting nature, and the *sang froid* which the culprit shewed, both in the commission of the deed and in his public and private examinations, together with his extreme youth (he was not yet seventeen), which seemed to render such a consummation of wickedness almost incredible, concurred to render the trial an object of very general curiosity.

Before enumerating the principal facts in the indictment, it ought to be mentioned that Schmitt manifested from the earliest age a proneness to mischief, and even to ferocity. As soon as he was able to walk in the street of his village, in the middle of which flowed a rivulet, he waited till some of his neighbours were conducting their cattle across it, and then amused himself with throwing stones to wet and to hurt them, and several persons were injured in this way ; but they were satisfied with recommending to his father to watch him, for already he was generally named *the madman*.

The sister-in-law of John Schmitt, who lived with her husband in the house of his father Joseph Schmitt, had infected all the family with the itch, which often occasioned violent quarrels between her and John ; quarrels which sometimes proceeded to

acts of violence, and in one of which she was grievously wounded on the head. This was the first charge in the indictment. The second referred to an attempt made by the accused to drown one of his cousins.

Some time before the event for which he was apprehended, Schmitt met his cousin, Antoine Littre, a youth of sixteen years of age, then fishing with a line on the margin of a pond: he went up to him, and persuaded him to place himself farther up near the sluice, where the water was much deeper and where he might catch more fish. The boy agreed; but no sooner had he taken his station, than Schmitt pushed him suddenly into the water, and laughed at the efforts he made to save himself. Having at last succeeded, Schmitt came up to him at the water side, and asked him if he was wet, and if the water had penetrated as far as the skin: the boy, to prove that it had, opened his shirt, when Schmitt plunged his knife into his breast, but happily it did not penetrate deeply.

In the night of 17th July, Joseph Schmitt, the father, was boiling potashes. At four o'clock in the morning he called to his wife to assist him in lifting down the cauldron from the fire; she refused and ordered John to help his father. John went in his shirt, and set the cauldron on the floor; and while his father was bending over it to stir the potass, he struck him a furious blow with a hatchet which lay at hand, and stretched him senseless on the ground. He then ascended to the loft where his brother and sister-in-law were sleeping, and deeply wounded the latter with the hatchet. His brother, wakened by the cries of his wife, pursued the murderer, and, assisted by a neighbour who had just come in, bound him with cords, and then placed his father on the bed, where he expired almost instantly. The culprit took advantage of a moment of liberty to put on his clothes, and tried to escape by the window, but was prevented. He then asked to see his father, and when near him, he raised the cover and uttered these remarkable words: "Ah, my dear father, where are you now? What will become of me? It is you and my mother who are the cause of this misfortune; it is long since I predicted it to you, and if you had brought me up better it never would have happened."

Interrogated as to what had prompted him to commit such atrocities, he answered that it was doubtless the devil who had instigated him. He attempted also to maintain, that the itch which his sister-in-law had given him had been suppressed, and occasioned frequent fits of madness and fury, which forced him to sacrifice every thing. Several witnesses declared, that he had always been remarkable for profound piety and religious observances.

M. Vivier, his defender, explained with great talent the va-

rious circumstances which might induce the jury to regard him as in a state of mental alienation ; but they, after ten minutes' deliberation, found him guilty of all the charges made against him, and he was consequently condemned to the punishments awarded to parricides.

When counsel was allowed to Schmitt to prepare his defence, he confessed to him that every time he saw an instrument, whether hatchet, knife, or of any other description, he experienced a strong desire to lay hold of it to wound or kill the first person that might present himself.

During the pleading of his counsel, and while the latter was descanting on his insanity as a ground of acquittal, Schmitt interrupted him, and declared that he was not mad.

After his condemnation, he refused to appeal against his sentence ; saying, that he wished his mother to learn both his sentence and his execution at the same time, as it would spare her the anguish and anxiety she must otherwise feel in the interval before its confirmation. A few minutes before the fatal hour he sent for his advocate, and asked him if there was in the proceedings any means of nullity ; and when answered in the negative, he seemed resolute. The advocate observed, that as a last resource, he might still apply for a remission ; he then exclaimed, "*There is nothing to be hoped for for parricides.*" At this moment food was brought to him. He inquired what hour it was, and was told that it was almost midnight. He looked at the dish, and, observing that it was meat, he refused it, saying that in a few minutes it would be *Friday*.

As he walked barefooted to execution, his confessor asked if the pavement did not hurt him. "I would like," said he, "if they would make me walk on thorns." Arrived at the scaffold, they cut off his hand, but he uttered no cry, and remained calm to the moment of his death.

"I have seen Schmitt several times," says Dr Marechal of Metz, "and I have been always struck with the smallness of his head and its singular conformation ; and since then, I have had his skull in my hands and examined it with care. The forehead is narrow and greatly depressed above the superciliary ridges ; the sinciput is tolerably elevated, and the temporal region presents a marked prominence over the meatus auditorius. The skull of this individual has then the same conformation as those of all the idiots mentioned by Pinel."

To this interesting case, Dr Marechal has added an example of monomania with tendency to suicide in private life, which we quote as throwing light upon the public cases about to be mentioned. After eighteen months of an ill-assorted union, a young lady had a very laborious accouchement, at the termination of which she was seized with a dangerous malady which was soon

cured. She nursed her infant for three months, when she was observed to become sad, taciturn, melancholy, and often in tears. Occasionally her features became discomposed, and her lips agitated by convulsive movements. One day when seated near the fire with her infant on her knees, she loudly exclaimed, "*Snatch the child from me, or I will throw him into the fire ;*" and then confessed that for a long time she had felt an irresistible propensity to destroy the child, and that on approaching a fire or a window, the same desire always returned. After several temptations like the preceding, the child was taken from her. She then became calm, but soon relapsed into melancholy, refused to take food, and tried to destroy herself, lamenting her unhappy propensity. She was cured ; but three years subsequently, after a very easy labour, having attempted to nurse the infant, she was obliged to give it up in the second month, as the propensity had returned too strongly for her powers of resistance. She fell into deep melancholy, constantly tormented with the desire to kill the child, and with the wish to commit suicide, which she tried to accomplish twenty times. This access was incurable.

This case is highly valuable. If the lady had yielded to the impulse, and burned her child during the first attack, it is obvious how easily, under the popular doctrine, she might have been brought in as guilty of murder, and the three preceding months of low spirits have been represented as months of premeditation instead of resistance.

II. On 2d August 1825, JOHN HIPPER was tried before the Court of Assizes at Metz for fire-raising. The following were the facts elicited at the trial, and by the Procurator-General:—

The accused, who was of an odd character, instead of engaging regularly in his work, remained several days in his room, and often in bed. During that time he refused every kind of nourishment except bread. To drive away the ennui which overwhelmed him, he had recourse to spirituous liquors, and the resulting intoxication was so much the more dangerous, that it often took place after long fasting. His father and sister had been frequently the victims of his rage. The accused had not left his room since Friday 27th March, when on Sunday at 7 A. M. he complained of severe intestinal pain, and demanded a chopin of brandy, which was given to him. He drank part of it, and upon learning that his sister was going to the confessional, he broke out in the most outrageous and irreligious exclamations against her. He even went so far as to strike her ; and had it not been for the presence of his brother-in-law, who prevented him by main force, the excesses of the accused, first against his sister and then against his father, would to all ap-

pearance have been carried much farther. In his fury, he announced that he would set fire to the house and kill himself. He then went to his room, whence he returned several times to the kitchen. At last about ten o'clock he came down again, and as he seemed disposed to satisfy his rage against his sister, the latter went to rejoin her husband, who was in the garden. She had been there only a few minutes, when she perceived the house enveloped in flames. The fire made rapid progress, because it appeared that it had been kindled in different places at the same time. Hipper, far from running away, *returned to his bed*, and quitted it only when the officers broke open the door to arrest him.

The defender pleaded with success the motive of mental derangement, and founded on all the antecedent circumstances and on the *impossibility* of the accused in remaining calm and going to bed after the crime which he had just committed. Such excesses as these could not be ascribed to the discontent caused by an unequal division of the family property, as was at first supposed, because his interests had been actually guaranteed, and, in burning the farm-house, he destroyed a building of which he was in part proprietor, and also the contents of it, which constituted for the time the chief portion of his fortune.

The physicians who visited Hipper during his imprisonment, declared that he often gave way to acts of rage and violence capable of endangering the safety of the other prisoners; and the jury considering him to be insane, decided that he had not acted as a voluntary agent.

III. PIERRE-JOSEPH DELÉPINE, aged sixteen years, was tried before the Court of Assizes of Paris, for eight different acts of fire-raising in the Faubourg St Antoine in August 1825.

The first time, a bird with burning tow saturated with spirits attached to its tail, was set at liberty in a garden adjoining the house of the accused.

At ten o'clock of the night between 17th and 18th August, a fire broke out in the garden adjoining that of Delépine; two heaps of straw close to the wall having been burned, and a part of the wall destroyed. Three days afterwards a grange belonging to Delépine's garden was burned.

In the night of 23d August a cousin of Delépine was awakened by a dense smoke, and soon discovered that a box which contained his effects was in flames. Next night, at eleven o'clock, a person passing in the street saw a heap of straw burning at the extremity of the garden next the street, and scaled the wall to give assistance. Delépine and his family rose, and the fire was at last extinguished. Delépine's mother, thoroughly frightened, examined every part of the house, and found in the garret

a basketful of burning charcoal, which she luckily discovered in time to extinguish it.

On the 7th September, at three in the morning, the mother having perceived symptoms of fire, began another search, and immediately discovered a piece of burning canvass in a small press for keeping firewood. The accused testified astonishment, and helped to extinguish the flames. Soon after, a handful of burning flax was discovered between two mattresses in the room occupied by his two sisters, the bedcover and sheets being already on fire. The same burning materials were found in the room of Delépine under his pillow. About five in the morning, a heap of straw in a neighbouring garden was observed to be in flames.

In addition to these acts, some thefts were charged against the accused.

In his examinations, Delépine denied any participation in the facts which are here narrated, but without alleging any circumstance tending to destroy the charges made against him. If he deserted his home, it was, he said, that he might be more at liberty to amuse himself. (On the 7th he had gone to the market as usual, but did not return; he had carried with him his watch and money, and was not arrested till the 14th.)

His father deposed, that the accused did not enjoy the degree of intellect which from his age he ought to have attained. And in proof of this, he cited the very nature of the facts imputed to his son, and the absence of any sufficient motive to excite him to so many attempts against his family and persons who were indifferent to him: and he presented a certificate from nine of his neighbours, shewing that the ideas and will of Delépine were often disordered; that in conversation and in conduct he had often seemed to them to be wandering; that sometimes he stripped himself naked, and ran like a madman up and down his father's garden; that they had heard his parents say that, in the preceding January, he had attached a cord with a sliding-knot to a beam, apparently to destroy himself, and that some time afterwards he had attempted to throw himself into a well.

The subscribers of this certificate, when examined as witnesses, could give no direct proof of their allegations, and their evidence represents Delépine rather as a singular and odd being, than as an idiot or madman.

Delépine's conduct was always irregular; he had given his father many causes of uneasiness, and he was jealous of his brothers and sisters. At different periods he had stolen from his parents, and his arrest had at last taken place in consequence of a theft. Having found on the highway a cart and horse, which the driver had left for a moment, he led them away to an unfrequented street, unyoked the horse, took off his harness,

and went to sell him in the horse-market, where his age and the insufficiency of his explanations induced the commissary of police to arrest him. According to the prosecutor, this act and some others rendered his alienation problematical.

At his trial Delépine answered the questions put to him very calmly; his physiognomy was immovable, and presented all the aspect of stupidity. He confined himself to a denial of the facts imputed to him, and declared his inability to conceive how all these fires had happened. According to the newspapers, he had a soft expression, indicating at most fourteen years of age. In the police report, he is described as having a low forehead.

The mother of the accused stated that of late her son's conduct had given rise to many reproaches, and that they once had the intention of secluding him. He had always a *bizarrierie* in his ideas, and was addicted to the most grotesque and mischievous tricks (*singeries*), and shewed that he had something odd in his head, though neither idiotic nor insane. The other witnesses gave similar testimony, and affirmed that though neither exactly insane nor absolutely silly, there had always been an obvious defect in his mind, and a proneness to mischievous pranks. Delépine, however, was found guilty and condemned to death, which sentence he heard with the same indifference and immovability that he shewed during the proceedings.

Upon this, M. Claveau, his counsel, addressed a memorial to the king, in which he endeavoured to establish the mental incapacity of Delépine, and to save him from death. "His body," says this able defender, "is weak, his countenance pale, his eye sad, his body lame, and his mind infirm. There is no aptitude for anything; he is wrapt in silence, and attacked by convulsive movements. He shunned his companions, and when he went to play, he dreamed the most frightful amusements. In the middle of the night, he placed baskets on his head to increase his height, enveloped himself in clothes, and, armed with cudgels, ran up and down the garden uttering fearful howlings. On one occasion he tried to light a stove with thirty sky-rockets; the ruins covered but did not astonish him. *After his condemnation, in the prison, under the eyes of his keepers, in irons, and almost in sight of the scaffold, he contrived to place burning embers in his bed, and lay down upon it while actually a prey to the flames.* The spectacle of a conflagration and devastation is the object he desires, and cares not if he perishes in obtaining it." The consequence of this memorial was a commutation of punishment to perpetual imprisonment without branding.

Such is the account of the trial as given by M. Georget in the twelfth volume of the *Archives Generales de Médecine*. M. Georget (from whom the accounts of the French cases reported

in the present article are derived) has added remarks which are so pertinent, that we shall here translate a few of them.

I have before me, says Georget, an undeniable proof that Delépine is either an imbecile or a most consummate criminal. It is the copy of the indictment which was left with the accused, and over every part of which he had amused himself by writing and drawing the most absurd and unmeaning words, and by connecting and altering different letters. Thus the words "Acte d'accusation contre Joseph Delépine," are as follows:—"*Dacte deaccuzationus contre Josephu Delapine;*" and again, "*Marieux, meche, a mosire non, dacculer, mosieur je dit, bonjour à monsieur lery,*" &c. Can it then be conceived that any man with the slightest perception of the enormity of his crimes, and under the weight of a capital accusation, could feel so little anxiety about the result, as to give himself up to such stupidities? In addition to insensibility to the crime, does not such scribbling betoken the weakness of a child's mind, and therefore absolute imbecility in a boy of sixteen years? The whole acts charged against him also were much more like those of a child than of a thinking being; and, taken in connexion with his miserable forehead, weak constitution, stupid physiognomy, mischievous propensities, and utter insensibility to his situation and to personal danger, they leave not a doubt of his real character.

Delépine is again described as having a very low forehead, and an expression of great stupidity; and his utter indifference during his trial, and the apathy with which he denied his crimes without entering into any defence, are in accordance with the weakness of his mind.

It is objected that those who were in the habit of seeing Delépine did not consider him as either idiotic or insane, but only as capricious, bizarre, malicious, and selfish; and it is added that an adroit robbery excludes the possibility of mental imbecility. It is supposed that there are no lunatics but those who are wholly extravagant in speech and action, and no idiots but those who are wholly destitute of ideas. In the lower orders particularly, where the individuals have occasion for but a very limited degree of intelligence to perform the simple works in which they are employed, those only are regarded as imbecile who cannot conduct a horse or tend a flock, and robbers are regarded as men of talent. But this is a strange and a cruel mistake, as the records of every asylum can incontestibly prove.

It is notorious, for instance, that in hospitals for the insane, there are generally a number of imbecile or even idiotic patients employed in the coarser work of the house, or who act as servants and assistants to the regular officers. A little experience enables them to go through their duties, to clean the courts, to carry burdens, work machines, execute easy commissions, count

money, and procure sundry enjoyments for themselves ; but these unfortunate persons have only the most obscure and imperfect conceptions of society, laws, or morals. If they have the idea of property, they have no perception of the consequences of theft ; and although they may be taught that they ought not to harm any one, they may still be as ignorant as ever of what would happen to them if they committed murder, or were guilty of fire-raising. In point of fact, thieving is very common among idiots and imbeciles, just because they have neither the moral perceptions, the fear of punishment, nor the idea of disgrace to regulate the desire to appropriate what excites their Acquisitiveness. And many of them, under the influence of active Secretiveness, are in the last degree cunning and expert in effecting their purpose. In the lower orders, there are many individuals but a little higher in the scale, who are yet held to be amenable to law, although almost as weak in intellect and as deficient in moral feeling as the former. This class of persons, says M. Georget, furnishes to our courts, our prisons, and our scaffolds, a much greater number of subjects than is at all suspected by the public.

IV. Another case of a very unequivocal character is also highly deserving of attention. It is that of MOUNIN, who was tried before the Cour Royale of Riom in May 1826.

On 15th February 1826, Jacques Mounin, after many acts of violence and fury, both in the church of Chavroux and in his own house, escaped from his family, who wished to restrain him, scaled the walls of several adjoining properties, and took to the fields without shoes, without hat, and without weapons of any kind. His flight having excited considerable alarm, as after some epileptic attacks he had formerly given many signs of a blind fury, the local authorities were informed, and several persons despatched after him as quickly as possible.

On arriving at a field where a great many labourers were at work singly, Mounin first addressed threats to a man who was driving a cart, and immediately thereafter attacked with stones and pursued Joseph Faucher. The latter having escaped by flight, he then made up to Mayet, an old man almost blind, whom he knocked down and killed by striking him on the head with a large stone. Having slain Mayet, he next attacked a man who was digging at a little distance, and with the spade deprived him of life. A few minutes afterwards, he met Antoine Prophete on horseback, struck him with stones, and knocked him from his horse, but at last made off in consequence of the threatening cries of his victim. He then chased some children, who saved themselves by hard running ; but he overtook another

man at work with his spade, and slew him. His career was then cut short by his arrest.

On his examination, the court decided that there was no cause for a judiciary trial, as the involuntary and indiscriminate fury of Mounin was too clearly the offspring of disease to leave any doubt about the matter.

During the pursuit, Mounin was twice fired at with ball, and was wounded in the eye, upon which he threw himself into the stream of a mill-pond ; but a gentleman having followed him, he was there seized and overpowered. On being questioned afterwards when in confinement, Mounin said that he recollected well having killed the three men, and especially one of them, a relation of his own, whom he greatly regretted ; but he added that in his paroxysms of frenzy, he saw nothing but flames, and that blood was then most delightful to his view. At the end of a few days' imprisonment, he seemed to have entirely recovered his reason, but subsequently he relapsed.

V. A fifth case of the same kind occurred at Paris in September 1825. VATELOT, aged twenty-nine years, a gendarme, in passing the Place Louis Quinze, suddenly struck at the Sieur Chardon with his sabre. The latter turned round, and asked what he meant. "I know you," said Vatelot ; "you are my enemy, and I will give it you." He then aimed another blow at Chardon, and after pursuing him for a little with his drawn sword, left him. He next struck the Sieur Bellon on the head, and aimed two strokes at M. Avenel, who accompanied Bellon ; then threatened two other gentlemen, and lastly, sabred a lady standing at a door, and vanished. He had been drinking, but was not intoxicated. These acts have all the characters of those committed by furious maniacs. Like Mounin, Vatelot "maltreated without distinction all who fell in his way, and made other successive attempts at homicide without being driven to it by any of the passions which lead to crime, but by a fatal frenzy which urged him to shed the blood of any one." This is the distinction made by the court alluded to in the former case between crime and disease, and it is very characteristic : Vatelot was nevertheless condemned.

Such are a few of the French cases that have been placed upon record since we brought the similar instances of Lecouffe and Feldtman before the notice of our readers ;* and we stop here not because the stock is exhausted, but simply because by citing more we should extend the narrative to an unreasonable length, and because we wish before concluding to give a brief account of several which have occurred in our own country.

* Vol. III. p. 365.

VI. About the middle of last century, as we are informed by Dr Smollett, in his Continuation of Hume's History of England, LAURENCE Earl FERRERS, a nobleman of a *violent spirit*, who had committed many outrages, and, *in the opinion of all who knew him*, given manifold proofs of insanity, at length perpetrated a murder, which subjected him to the cognizance of justice. *His deportment to his lady was so brutal*, that application had been made to the House of Peers, and a separation effected by act of Parliament. Trustees were appointed, and, at the Earl's own request, Mr Johnson, who had been employed in the family almost all his life, was appointed manager of his estates. The Earl *imagined that all his relations were conspiring against him* (a very usual feature of insanity), and that Johnson was an accomplice. Fired with this supposed collusion and other ill-treatment, his Lordship wished to turn out Mr Johnson from his farm; but finding that he had not the power, he determined to *gratify his revenge by assassination*. Accordingly he ordered Johnson to attend with his papers on a certain day; this the latter did, and was desired to walk into an inner room. All the male servants were at this time absent on one errand or another, and only three women left in the house. The Earl locked the door, warmly expostulated with Johnson, and insisted on his signing a paper acknowledging himself a villain, under pain of being instantly shot. Johnson remonstrated against such cruelty, and deprecated the Earl's unjust indignation. The Earl was deaf to his entreaties, *commanded him to kneel and implore Heaven's mercy, and then shot him*. Mr Johnson fell over in great agony, which for the moment excited the Earl's pity, and made him have his victim carried to bed, a surgeon instantly sent for, and Johnson's family informed of what had happened; he even seemed extremely anxious for his recovery. At the same time he explained to Mr Johnson's daughter and to the surgeon that his intention had been to kill him outright. He *then drank immoderately to support his spirits, declaring that he did not repent of what he had done*, that Johnson was a villain that deserved his fate, and that if he died he would surrender himself for trial before the House of Peers. He drank to intoxication, and then his hate returned. *He would not allow Johnson to be removed to his own house, but would keep him near himself "to plague the villain."* He then went to Johnson's room, *abused and insulted him, threatened to shoot him through the head, and was with difficulty restrained from using violence*. Next morning Johnson died in great agony.

Earl Ferrers was upon this apprehended, when endeavouring to make his escape. He threatened resistance at first, but on being conveyed to the Tower, he became *calm, composed, and*

unconcerned. His understanding, naturally good, had been cultivated; and his arguments and remarks were *very rational, even when his conduct was frantic.*

The people cried aloud for vengeance, and government gave up the offender to the justice of his country. In his defence before the House of Peers he pleaded insanity, and called many witnesses who *proved that lunacy was in the family and affected several of his relations; that he himself was beset with unfounded jealousy of plots and conspiracies, unconnected ravings, sudden starts of fury, denunciations of unprovoked revenge, frantic gesticulations, and a strange caprice of temper; that a solicitor of reputation had renounced his business in the full persuasion of his being disordered in his brain; and that long before this unhappy event, his nearest relations had deliberated upon the expediency of taking out a commission of lunacy against him, and were prevented only by the apprehension of being convicted of scandalum magnatum should the jury find him to be compos mentis*—a circumstance, says the historian, the more likely to have happened that his madness appeared in his conduct and not in his conversation. A physician skilled in this branch decided him to be insane; and all his neighbours had long regarded him as mad: one noble lord declared in the House of Peers, so long before as on the passing of the bill for separation from his wife, *that he looked upon him as a maniac, and that if some effectual step was not taken to divest him of the power of doing mischief, he did not doubt but that they should have occasion to try him for murder!* Notwithstanding all this, his lordship was found guilty of murder, and, on the 5th of May 1760, was taken from the Tower and hanged at Tyburn. He *dressed gaily for the occasion in a light coloured suit of clothes embroidered with silver*, and, although displeased at being executed like a common felon, behaved with composure and propriety. He took an opportunity of *declaring that he had no malice against Mr Johnson, and that the murder was owing to a perturbation of mind occasioned by a variety of crosses and vexations.* He also disclaimed being insane, and said that he had reluctantly adopted that plea at the request of his friends.

Several idiotic or insane persons have of late years been tried for murder, before the High Court of Justiciary in Scotland, and, apparently through ignorance of the physiology of the brain on the part of the prosecutor and judges, have been condemned and executed.

VII. The first whom we shall notice is a young man named JOHN BARCLAY, executed at Glasgow for the murder of Samuel Neilson, on the 10th October 1832, in his house at Cambusnethan.

When brought before the Court of Justiciary, Barclay's appearance and conduct were so strikingly those of idiocy, that instead of proceeding with the examination of witnesses, the case was postponed till medical evidence should be obtained, to decide whether or not he was a fit subject for trial. An opinion in the affirmative having been given, Barclay was put to the bar, and the deed having been clearly proved, he was pronounced guilty, but "*strongly recommended to mercy on account of the weakness of his intellect.*" That this recommendation was well founded is very apparent. Barclay murdered Neilson for whom he had previously shewn affection, and stole from him three one-pound notes, and a watch. But so little sense had he of having done wrong, or of his own situation, that he hovered about almost without disguise, and, while going to spend part of the money with the first person he spoke to, he dropt first one and then another note at his feet, as a child would have done. When questioned, he could see no difference between killing a man and killing an ox, except that he "would never hear him fiddle again;" and so little did he know of the nature of the watch, that he regarded it as an animal, and, when it stopped from not having been wound up, believed it had died of cold from the glass being broken. In his parish, he was familiarly known as "*daft Jock Barclay,*" and the clergyman, who knew him well, always "regarded him as imbecile, and *had never been able to give him any religious instruction, and did not consider him a responsible being;*" and yet he was held accountable to man, although he could not be made to understand his duties to God!

Even, independently of such evidence, the Advocate-Depute (if the report of his speech in the *Glasgow Argus* of 25th April 1833, be correct) sets the question at rest by making the extraordinary statement, "that the pannel, *though found to be weak, crazy, irritable, and capricious,*" "was perfectly responsible for his actions." It is impossible to divine by what train of argument the prosecutor arrived at such a conclusion, but it leaves no doubt of the fact that Barclay's weakness of mind was recognised by all parties from the Judge downwards; notwithstanding which, and the earnest recommendation of the jury, he was executed at Glasgow on 14th May 1833, to the distress of thousands who, with every abhorrence of the crime for which he suffered, could not help regarding him as a victim sacrificed for being an idiot rather than for murder. We have seen a cast of Barclay's head, which is extremely defective in the intellectual region.

Much stress has been laid on Barclay's "*knowing* right from wrong," as affording indisputable proof of his being a moral agent. This, however, is a most fallacious and cruel argument. Every one conversant with unsound mind knows familiarly that

a patient often not only knows that the deed which he is impelled to commit is wrong ; but that, after struggling in vain against the inclination, he will, horror-struck at his own wickedness, but unable to resist it, even give a hurried scream of warning to his intended victim to save himself ! It has sometimes happened with the best and fondest of mothers (as in the case above quoted from Dr Marechal), that, in the form of insanity occurring after childbirth, they have been suddenly seized with an irresistible impulse to destroy the infant on which they doted, and have saved it only by timely calling for assistance. Some infants have been sacrificed in this dreadful way, to the subsequent horror of the parent. In such cases, the knowledge that the deed is sinful and cruel is complete ; but will any one venture to say that therefore the *guilt* on the part of the mother is equally positive ? If parents possessing high moral feelings and affections are thus unable to resist the sudden impulse of disease, ought the poor, " weak, crazy, and irritable " idiot to be more responsible for the commission of crimes, the nature and consequences of which he has not intellect enough to comprehend ?

VIII. At the very time when Barclay was before the Court at Glasgow, JOHN STEWART was under trial at Perth for the murder of his wife, near Dunkeld, also in October 1833, under circumstances which excited a strong suspicion of insanity. It appeared in evidence that he had been under confinement, as a lunatic, about eighteen years before, and had then attempted suicide ; and the probability of his insanity at the time of the murder was greatly strengthened, if not positively proved, by the fact of his having been long subject to epileptic fits, which, sooner or later, almost always derange the mind ; and by his having been sour, morose, and subject to low spirits, ever since his first illness. Some of the witnesses, however, having declared Stewart to be in their opinion perfectly rational, he was found guilty, by a *plurality* of voices, and condemned to death ; but afterwards, on a strong representation of the facts, he was most wisely respited, and the public was spared the painful spectacle of seeing a fellow-creature sent to the gallows to atone for being diseased.

IX. In addition to these cases, we may refer to that of WILLIAM HALL, minutely detailed in the *Scotsman* newspaper of 1st June 1838. Hall cruelly murdered and mutilated a young boy at West Craigs, without any conceivable motive, and, when first seen, stared so wildly and behaved so strangely, that no doubt of his insanity was entertained. But after his apprehension, he exhibited so much rationality, and even acuteness, as to dispel that impression from the minds of those who were not aware that, in certain forms of derangement, the intellectual powers

are rather increased than impaired by the excitement of disease. That this was the case in Hall's instance, is rendered probable by a circumstance incidentally mentioned, which would have led a *medical* man to infer morbid action in the brain. It is remarked of Hall, when under examination, that where, *from defect in his articulation*, his answers were not understood, he explained his meaning by signs and otherwise, and was satisfied when he succeeded in conveying the true impression. Now, it so happens, that such a defect, when not natural, is one of the surest signs of disease in the head, and one of the most unpleasant symptoms in certain forms of insanity. Hall having subsequently committed suicide, no farther inquiry was made to determine the real state of his mind, but the event itself certainly increases the presumption that he was deranged.

X. A tenth case, also of recent occurrence, may be adverted to, as the subject is an important one. It is that of John Howison, who was executed at Edinburgh in January 1832, for the murder of an old woman at Cramond; a case which excited a great sensation at the time, as he was generally believed to be insane, although some professional witnesses were of a different opinion. The fact, however, was clearly established before his execution, when Howison solemnly accused himself of eight other murders, of which he was perfectly innocent, and denied as solemnly the one he was proved to have committed. Occurrences like these are too startling in their nature, and too revolting to every feeling of humanity, not to deserve more serious investigation than they have hitherto met with; and, on that account, we have ventured to notice them at some length, that attention may be directed to them, and their real nature ascertained. As a preliminary step we must, however, remove two objections which are often advanced against the plea of insanity, even in very clear cases.

It is argued, that to respite such irresponsible beings from the gallows, is in reality to allow crime to go unpunished; and that if a man, whether from disease or faulty cerebral conformation, is so constituted that his life and liberty are dangerous to society, society has a right to hang him for its protection; and that therefore it is unimportant to determine the existence or non-existence of such disease or deficiency, as a reason for not ordering him for execution. The first proposition is manifestly absurd. If the *man were to be set free* because he was not a fit subject for hanging, it might then be justly said, that crime was sheltered from punishment on a plea of false humanity; but the case is totally altered, when the very admission of the insanity *necessarily subjects the individual to perpetual confinement*, or till confirmed recovery—a process which many *crimi-*

nals dislike even more than hanging. The second proposition, that society may punish a man with death, whether he be insane or not, is obviously wrong—first, because it revolts the moral feelings; and secondly, because, even granting that society has the right to destroy an insane or imbecile member, there is still a most important distinction between destroying a dangerous man because he is a *murderer*, and destroying him because he has the grievous misfortune to be *insane* or *idiotic*. In the one case, a degree of ignominy attaches to the criminal, and to his family, which it would be the most crying injustice to attach to a lunatic and his relatives, merely because, by the visitation of God, he is subjected to a distressing and painful disease. If the idiot and lunatic *must* die in expiation of their deeds (which we deny), let them be sent to the gallows as dangerous *patients*, whom society cannot safely permit to live; but let not iniquity be added to misfortune, and morality and religion be outraged, by inflicting upon them and their families the debasing stigma of crime.

But the question of diseased or defective brain being a frequent cause of criminal actions, is important, not only as it involves the fate of the accused, but in reference to the prevention of crime, and the moral progress and safety of society. We have unhappily daily proof before our eyes that the execution of these victims to the laws does not prevent the recurrence of similar atrocities. If the perpetrators are most frequently to be ranked in the class of patients, the fruitlessness of example as a check upon crime is easily understood, for it has never yet been insinuated that the cutting off one man's head will protect another man's brain from attacks of disease. If, on the other hand, the accused are of sound mind, it is then obvious that, in their actions and conduct, they must, like other men of sound mind, be moved by the ordinary impulses of humanity, or, in other words, that they must have strong and palpable motives for their deeds, proportioned in strength to the repulsiveness and horror of the latter. A few accordingly, and but a few, present motives of this kind, and it is in such cases that general sympathy is sometimes roused to save the culprit—simply because every one has so much of all the faculties, that he can fancy himself doing the same act when under strong excitement or strong temptation. Thus, when, under the influence of provocation or excited passion, two individuals quarrel and use deadly violence towards each other, in consequence of which one loses his life, the motive is felt to be so much a part of human nature, and, in some instances, to have so little of the necessarily atrocious in its character, that, by the laws of civilized nations, a milder punishment is decreed against the offender than against the common murderer. In like manner, when a man maddened

by jealousy and betrayed by the being whom he most loves upon earth, raises his hand against the invader of his peace, the law and public opinion pity while they condemn, and rightly look upon the mental suffering of the offender and the moral stigma consequent upon his conviction and seclusion from society, as the severest visitation which he ought to meet with ; and capital punishment is without power, because in such circumstances it is revolting to all our moral feelings, and turns the tide of popular feeling in favour of the criminal, and against those by whom his punishment is awarded.

The characters of Othello and of Macbeth afford striking examples of minds not naturally depraved acting under strong excitement ; and the character of the Highland drover in the *Chronicles of the Canongate* is a not less appropriate instance. Nor is it in romance or in the drama only that such individuals are to be found. David Balfour, who was executed at Dundee, in 1826, for the murder of his wife, is as affecting an instance as any mentioned either in history or in fiction ; and the extraordinary sympathy which he excited in the public mind owed its origin solely to the fact, that that unhappy man was by nature neither more savage, more brutal, nor more unfeeling than his neighbours ; but that he was, on the contrary, a man of strong affections, and of a kind, relenting, and forgiving nature ; and that it was the outrage committed upon these cherished affections by the brutality of his wife, that distracted his mind and irritated him for the time beyond the power of reason to control, and that led to his untimely fate.

Balfour, it will be recollected, was a man of previously good moral character, by no means deficient in intelligence, and passionately attached to his wife. For several years his feelings were lacerated and his life embittered by the estrangement, hatred, and misconduct of that woman, whom even in her guilt he could not help loving and forgiving ; till, on his return home after a considerable absence, when holding out the same proffer of love and friendship which he had never ceased to make, he was insulted and provoked by the most shameful abuse, and ordered, on pain of maltreatment, never to enter the house. Repulsed and reviled not only by his wife but by her family, he went out in a very agitated state of mind, and procured the knife with which, when she was in the act of turning him to the door, he committed the murder ; and ran to the jail to give himself up, telling what he had done. Balfour was in fact an Othello in real life and in a lower station, and his situation arrested the attention and sympathy of the public mind in a very extraordinary manner, solely because it was evident that he was wrought upon almost to madness, and was not by nature either destitute of good feeling or utterly depraved. In other words, every one

could feel in his own bosom the power of the spring which had moved him to the rash deed for which he suffered.

It is this palpable existence of an apparent motive that constitutes the chief character of crime, as distinguished from madness. The man who murdered Begbie, the bank-messenger, was evidently tempted by the large sum of money which he believed him to carry; Fauntleroy was also evidently tempted to risk his forgeries by the pressure of his necessities; and Haggart had the same palpable motive in knocking down the Dumfries jailor: but when we come to such cases as those of Delépine, setting fire to every thing within his reach, and lying down on his burning bed; of Schmitt, the parricide, who tried to drown his cousin and murder his sister, and who actually killed his father without external motive of any kind, except the alleged instigation of the devil; of Hipper, who also set fire to the house, attempted the life of his father and sister, and burned the loft containing his own property; of Mounni, who slew one person after another, till himself fired upon and overtaken; of Vatelot, the gendarme, who acted in precisely the same manner, attacking indiscriminately every body that he met, and against whom he could have no grounds of malice; of Trestel, who attempted to poison his father and mother, and a whole dinner-party in their house, without any appreciable motive; of Henrietta Cornier, who cut off the head of a neighbour's child, to whom she was fondly attached; of Papavoine, who murdered, in the wood of Vincennes, two children whom he never saw before; of Robert Deans, who murdered the sister of a girl whom he loved, that she might get to heaven the sooner;—when we come to such cases as these, and find no palliating, no *human* motive, no shadow of reason with which we can sympathize, and see nothing before us but the bloody trace of the murderer's hand, we are apt to shrink back in horror, and, covering our reason with the veil of feeling, to execrate the diabolical insensibility of the miserable criminal. But is not this very removal from the extremest verge of humanity itself a proof, that the mind which directed the deed is not human, and is therefore more deserving of commiseration than of revenge? Is it not a proof of the existence either of morbid derangement of the organ of the mind, or of natural imbecility or uncontrollable thirst of blood?

All the cases we have cited shew that it is so; and if the public once knew that the organs of the propensities may be diseased separately from those of the intellect, and that they may be possessed in high and vigorous endowment when the intellect is weak, they would seek more anxiously to prevent the commission of such crimes, than to execute the criminals or patients themselves. The propensities do not think or judge, but they furnish constant and vigorous motives to conduct and

action; and if their organs become diseased, it is the conduct and actions that change—not the intellect whose organs remain sound. Hence it happened that Earl Ferrers was rational and sound in his arguments, and acute in his defence, while, his propensities being diseased, his conduct was furious, and his fancy full of conspiracies and plots. By those ignorant of mental philosophy, a man is held to be in sound mind if the anterior lobes of his brain, or organs of intellect, are healthy; while the remaining two-thirds of his brain, the organs of his most powerful mental faculties, may be highly diseased, and consequently his *dispositions and character* totally changed: and *vice versa*, if the anterior lobes are diseased, and the intellect is disordered, then he is at once pronounced insane, and regarded as unaccountable, whatever the state of his feelings. But Phrenology will put an end to this, and point to these very unnatural manifestations of the propensities as proofs of disease in their organs, as much as the unnatural state of the intellectual powers is a proof of disease in the anterior region of the brain. In the case of every other organ of the body, an unnatural or perverted state of the function is held to be a proof of the existence of disease; but by a strange anomaly, in that of the brain, the most important of all, perverted function and unnatural action are too often punished as a crime. The lady who, without betraying any aberration of thought, had struggled for three months against the almost overwhelming inclination to murder her infant child, was declared insane, because she had still power to exclaim to have it snatched from her hands; whereas, had she been then alone, and thrown it into the fire, she would in all probability have been condemned to death, on the ground that she had never betrayed any previous symptom of disease—as if this unnatural and horrid propensity without any external inducement, had not been in itself its strongest symptom and most convincing proof.

Very absurd notions are prevalent among the public as to the condition and conduct of the insane, and it is important that they should be corrected. The accomplishment of a crime by a person previously regarded as sane, is supposed to exclude the possibility of the existence of insanity; whereas medical men well know, and some of them have eloquently described, the long-continued efforts which a man, who feels his mind to be suffering, silently makes, first to resist the aberrations to which he is inclined, and afterwards to prevent them attracting the notice of others, till at last, from the accidental presence of some exciting cause, self-control becomes impossible, and an explosion takes place, which, to the bystanders, is the first evidence of his altered state. If Self-Esteem or Cautiousness

should happen to be the chief seats of disease, the corresponding manifestations, or actions founded on false ideas of rank and intense pride, or gloomy despondency, are at once set down as acts of insanity; but if Destructiveness should unhappily be the most excited, then the corresponding manifestations and acts of violence are set down as proofs of the most diabolical dispositions, and the previous calm is referred to as shewing the absence of disease.

In addition to this, the short duration and sudden cessation of the cerebral excitement are supposed to exclude the possibility of disease, but with no good reason. Insanity is in many instances as notoriously an intermitting affection as intermittent fever itself, and its intervals are distinguished by a return to sanity as much as those of fever are by a return to health. Besides, is the brain alone to escape sudden and short attacks of disease? Cramp, sudden and violent, even to death, affects the stomach, and why may not some equally sudden affection attack the brain? Violent mental emotion paralyses the action of the brain so suddenly as to arrest the powers of life, or to produce fainting. The same causes disturb the action of the same part so suddenly as to produce all the wild agitation and raving of hysteria; and yet, in a few minutes, tranquillity and sensation are restored, and go on as if nothing had happened. Let us not, then, condemn as a crime an action performed not only without, but against, all apparent motives, solely because disease was not evident before, nor continued to exist after its occurrence.

ARTICLE II.

GENERAL OBSERVATIONS ON THE PRINCIPLES OF EDUCATION: for the Use of Mechanics' Institutions. By Sir G. S. Mackenzie, Bart., F. R. S. L. & E., &c. Edinburgh: John Anderson jun. 1836. Pp. 96.

THE substance of this little volume Sir George Mackenzie intended to communicate, in the form of lectures, to the members of the Mechanics' Institution of Inverness; but having been prevented by circumstances, he has published his "Observations" for the use of Mechanics' Institutions in general. It is an instructive and amusing book, written in an elementary, simple, and attractive manner, and may serve as an introduction or incitement to the study of Phrenology, as well as a clear exposition of the Principles of Education. After a well-written introduction, the author avails himself of a proposition so undeniable,

that it has already arrived at the honours of a truism, namely, that, in order to educate Man, we must know his nature, and that both in body and mind. A very concise and clear account of the structure and functions of the body is then given. A rational idea is next presented of all that we can know of the union of body and mind, namely, that they *are* united, but that we can only see mental manifestations through bodily organs. The question, What are the faculties of the mind? comes next in order, and the analysis occupies more than one-half of the volume. It is the phrenological, but without the organology, after the manner in which it was expounded to the working classes by Mr Simpson last winter. Sir George Mackenzie, when introducing the subject with some general observations, makes the following excellent and highly moral remarks upon that bugbear of the antiphrenologists—Materialism :—

“Some men noted for acuteness and talent, have affirmed that what is called Mind is not an immaterial principle, but that its manifestations are the result of a peculiar combination of material substances, endowed with what is called life, which also, they have said, results from certain material influences. Such an announcement instantly brings down upon the devoted head the execrations of religious feeling, and the thunders of the church—the unfortunate philosopher is denounced as a heathen, an infidel, and so forth. Now I would have you to reflect in this manner, believing you to be Christians: Jesus Christ himself never uttered a reproachful word. He exhorted his followers not to rail at their neighbours, even though they should rail at them. He denounced and reproached hypocrisy; but never the expression of a mere opinion. He strove to reclaim men from the errors of their ways, and knew well that reviling was not the way to effect that important end. If, then, any one should broach to you the opinion (for it is no more) that mind is nothing but a modification of matter, put the question, What is matter, a modification of which you speak of? The instant this question is pronounced, you perceive the utter impossibility of answering it. All the multitudes of chemical discoveries have not yet opened, even to imagination, a hope that what matter is can ever be known to man.

“We may feel an eagerness to dive into the mysteries of creation; but we may rest assured that whatever power is denied to us, is denied to us because it is for our good. Now, we are altogether ignorant of what mind may be, as well as matter; and the materialist could equally puzzle us by putting the question, What is mind? It is inferred, but erroneously, that if the opinion of the materialist were correct, it would impugn the doctrine of the immortality of the soul. I say erroneously; because it is obvious that nothing is impossible to God. If it has pleased

Him to form body and soul of what we call by the imaginary term matter, what is that to us? He made both soul and body, and he can destroy them both. He can kill and make alive again; and this whether the materialist be right or wrong in his conjecture. Although the body is formed to die—although we should even suppose that the soul dies with it—though they be reduced to dust, or dispersed in smoke—who will dare to say that the power of God cannot reunite them at his good pleasure, and not only restore their former union, but improve their nature, so that, while the condition of former existence is not forgotten, they shall be fitted for that new scene of enjoyment reserved for the just when made perfect? Thus we perceive that the opinion of the materialist is of no value or consequence whatever. But suppose that a man's mind shall be in such a condition as to give such an opinion the hold of belief. Suppose that this belief should lead to the idea that death is annihilation. We ought not to use harsh expressions or severity against him who may be so unhappy as to be reduced to such a state of mind. It is more fitting that Christians should mildly exert themselves to convince him of error, than violently to abuse him, and treat him as an outcast. Any man or set of men holding certain opinions contrary to our own, can inflict no injury upon us. If we should feel offended, and desire to wreak vengeance on our brother who differs from us in opinion, we are guilty of abusing our faculties, as I propose afterwards to point out, when submitting to you what may be called their legitimate and illegitimate exercise. If one man has a right to judge and form an opinion, every other man has the same undoubted right. This is Christian doctrine, and the doctrines of the new philosophy accord with it."

We need not extract from the work matter merely elementary on the faculties themselves; but there are here and there illustrative and argumentative passages, too forcible and original to be withheld from our readers in the author's own words. For example, under the first in order of the faculties, the Instinct of Propagation, he speaks as follows, and we cannot too earnestly press his views upon all who read, or may communicate them to others:—

"Many, it may be perhaps said all, the evils of life, may be traced to a well-meaning but false and hurtful delicacy, which makes us afraid to communicate to the young those things on which mainly depend the propriety of their conduct in life, their bodily and their mental health. God said it was not good for man to be alone, and he made an help meet for him. He created man male and female, and endowed them with feelings that attract them to each other, and which, when subdued into obedience, and combined with our better faculties, enable man to

attain the greatest of all blessings of which his state is capable, the rational enjoyment of a family, and of his truest friend ; and that friend becomes the more true, and the more devoted, when she too exercises her better powers, and when mutual efforts are made against whatever may tempt from the path of rectitude. But if it be thus important to the happiness of the married state to obey the higher impulses of our nature, is it not also a duty the most imperative to study the welfare and happiness of progeny ? When we are aware of the evils which are brought upon society by the disorderly indulgence of the sexual propensity—when we know that bodily and mental health are both destroyed by it when it acts alone—is it justifiable to the Creator and our own consciences to keep the young in a state of ignorance, until a fatal curiosity is provoked, which compromises their own health of mind and body, and also that of their descendants ? The influence of this feeling on society is prodigious ; and its evil influence proceeds from ourselves, not from the great and beneficent Creator. He created man, and bade him increase and multiply. For the wisest and most benevolent ends ; it has pleased the Creator to endow us with strong impulses, but he has also warned us not to abuse his bounty. If we do so, the consequences rest with ourselves, and we are inevitably punished by our own acts, in the loss of bodily health and of mental power. The evil of abuse extends itself to a lamentable extent in those countries where the men employed as religious guides are condemned to religious celibacy,—an institution at total variance at once with reason and divine law.

“ But let us for a moment turn from the evil and contemplate the good. Let us look at what God has given us to use, and we shall feel his goodness. When joined with other faculties, and permitted to operate only in its pure and elevated sphere, the propensity in question forms the basis of that refining and subduing sentiment which we call love. In purity and disinterestedness, it is most eminent in woman. In all ages has the love of women been extolled ; and I may refer you to Scripture for an estimate of its value. In David’s lament for Jonathan, he says, “ I am distressed for thee, my brother Jonathan ; very pleasant hast thou been to me ; thy love to me was wonderful, passing the love of women.” Woman nurses our childhood ; solaces and cheers our mature age ; in our hours of sickness she is a ministering angel ; nay, to succour us in danger she will risk her very life. Is such a being, then, given to us only to be a slave to passion ? Is the happiness and the value of such a gift from the hand of God to be sacrificed by concealing those laws of the Creator which ignorance may cause to be disobeyed ? Surely not.”

The observations on the laws of propagation are clear and

forcible, and, although they offer nothing new to the phrenologist, are well worth the study of the learner.

In treating of the Love of Approbation, the author exposes the absurd, self-defeating manner in which the faculty is dealt with in education. "We see that to manage this feeling in the young, requires very great attention in directing them to seek its gratification only in what is really and substantially good and useful. And here I may notice the common system of rewards and punishments in the management of schools. It is entirely forgotten that children, by natural constitution, differ from each other in talents and dispositions. Now, supposing two boys or two girls, one of them possessing a good memory and the other a bad one, and that both are equally endowed with Self-Esteem and Love of Approbation. You say to them, Now, children, here is a hymn, if you have it by heart in a quarter of an hour, you shall go to play, and the one that has it first shall have the medal. Here we have the desire for play and the desire for distinction roused into activity in both. But the natural ability of the one child enables it to get by heart the hymn in ten minutes, and it is sent out to play, with the medal dangling by a ribbon round its neck; while the other cannot accomplish the task within the prescribed time. Now, while the one is rewarded for no merit, but for the result of what Nature gave it—for no effort; the other, who, being less endowed, actually made the *greatest effort*, and deserved reward for so doing, is not only punished by the deprivation of play, but its Love of Approbation is mortified, and it becomes dispirited and careless, and in future ceases to make those efforts by which the memory would be improved. Thus is the greatest injustice inflicted upon the individual who really merited reward, and much injury in reference to its future progress. I can speak on this subject as I feel; for in this manner was I treated during the most precious years of my life; and were I now to attempt to compete with some children at school in getting tasks by heart, I should not only not gain a medal, but probably receive a sound whipping; and yet, you see I have the impudence to set myself up as a teacher of grown up men and women. The truth is, that with me, as with many others, my education did not begin till I was at liberty to educate myself. I have witnessed some horrible instances of the utter ignorance of human nature evinced by teachers, who, with the rest of the world at the time, and most of it at the present day, believe man to be a sheet of white paper, on which any thing may be written, or a lump of plastic clay, on which any shape may be moulded they may take a fancy to. The love of approbation is a powerful motive to work upon, and would be of most essential service in educating other faculties, if properly managed. In the ordinary mode of management, it is, in fact, employed

either to be itself nursed into sheer vanity and mistaken pride, or mortified so as to quell all useful exertion. I would have parents and teachers to reflect deeply on this subject, and that they would forthwith proceed to study the true philosophy of man, which exhibits what he really is, and unfolds the mode in which he is to be managed."

There is reason as well as good feeling in the following view of Cautiousness :—"This feeling is too often brought to a morbid state, by mothers, nurses, and schoolmasters. To save themselves trouble, they excite terror, and too often at the expense of truth, and nourish that very thing which they would be distressed to see displayed in after life, namely, cowardice. Teachers of religion are not aware of the degree to which they sink human nature, when they dwell more on the fear of hell than on the love of God. If the love of God to us passeth understanding, surely our love to Him should be promoted, as being better calculated to produce faith and good works, than terror of His power. It is a sad mistake also to make God's word a book of tasks. Some even insist on children getting portions of it by heart, by way of punishment. This does nothing but excite a dislike to the Bible, and in after life leads to that which is so much dreaded, infidelity ; for, when reason comes to be mature, and all the youthful misery that was inflicted by Bible tasks and punishments is remembered, and when it is seen how widely men who profess Christianity differ in the meaning which they attach to various parts of its contents, and how bitterly they dispute about them, the result is either disregard and indifference, or a critical examination of doctrines about which disputes are carried on, which possibly ends in scepticism. Thus, I conceive that the origin of not a little of that infidelity, and even heathenism, which is so much complained of as having arisen in modern times, is to be found in making the Bible a school-book, and exciting dislike to it instead of affection. This opinion seems to be confirmed by the fact, that almost all men who have been most distinguished by their reasoning powers, are those against whom the cry of infidelity has been loudest. They may be supposed to have seen nothing in the disputes of theologians but battles about straws, and to have said, "That about which such contentions arise cannot be a revelation," and they set aside the Bible accordingly. I humbly conceive that Christianity will never have its proper effect on the conduct and improvement of mankind, till more wisdom shall be displayed in the mode of teaching it, and above all, until religion shall cease to be used as a bugbear to excite the fears of children. The excitement of such fears lays the foundation of insanity ; and I believe that the religiously insane exceed in number all others who are in confinement. If, on the present occasion, I should have per-

mitted my own Cautiousness to be so overcome by my sense of duty, as to have made me, by these remarks, give offence to any one, I shall deeply regret it. But I will never conceal my opinion, that the genuine object of religious teaching is to amend men's conduct, by leading them to obey the Christian commands and precepts, which are the will of God. If that be not the object, I cannot understand why so many commands and precepts having such a tendency are contained in the Gospel. That something is wrong I am satisfied of; for my intercourse with society has been long enough to prove to me, that the commands and precepts of Christ are not better attended to now than heretofore, and perhaps are even more neglected among all ranks of society, though the same means of teaching Christianity have always existed. I may be wrong in attributing this wholly to fault in early education; but this is doubtless one great cause, and it is with this only I have to do at present."

Of the abuse of Wonder, which, in combination with Veneration and Hope, constitutes religious feeling, the author remarks:—"To make religion an engine of temporal power, or a means to gratify selfishness in any way, whether in the shape of the creed of one sect or another, appears to be a monstrous perversion of it. But I need say no more to satisfy you that that faculty, which designing men may direct to abuse, requires most careful nurture. As far as my own observation has gone, it appears the most apt to run into excess of almost all the faculties; and when once it gains ascendancy, no power of reasoning can bring it back to the rational homage due to the Great Author of our being. Even well-meaning men, when they have this faculty in excess, do infinite mischief, by their exertions to bring the minds of others into the same state. I will not, however, dwell on this melancholy subject. I will only add, that, while the mass of the people is kept in ignorance,—while the knowledge of God's works, in which he is manifested, is hidden from them,—they will be ever exposed to the notion that, if they go through certain ceremonies, they may gratify their desires in whatever way they like; and it is too common, even in this country, to see a man in church on Sunday, who will steal your goods on Monday, get drunk on Tuesday, and tell falsehoods every day. This is the usual result of ignorance and superstition; and until knowledge shall be sent widely amongst the people, their reign will continue undisturbed. No other method has yet succeeded any where, and it is time it should be tried. But there is yet another faculty that has a great share in exciting religious feeling, and is one of the greatest blessings we have received."

Describing Hope, Sir George remarks with equal truth and beauty:—"We now also see why, when well regulated, the fa-

culties of Wonder, Hope, and Benevolence, are held up by high authority as feelings to be anxiously cultivated ; for it is they which produce faith, hope, and charity. The more we inquire into and study our own nature, the more clearly are we satisfied that the Christian morality is not, as too many are apt to think, too elevated for human nature. The Creator has implanted in us such powers as, when duly cultivated and regulated, lead us to believe it to be no chimera that man may, and indeed will, improve himself, till at last the kingdoms of this world shall merge into one great and uniformly moral and religious family."

A new, and not a baseless, idea is started by Sir George Mackenzie, when treating of Ideality. He says, "Till I was writing these sentences, it had not occurred to me that this faculty might, and probably does, constitute a portion of the religious character. But not recollecting whether this has occurred to any one else, I may be mistaken. Yet it strikes me, that, since it excites a desire for perfection in all things, it leads to the contemplation of the perfection of the Creator in power, wisdom, and goodness ; that, in searching into His works, it rouses an extraordinary admiration of them, and directs us at once to their Author. Many view the works of art and of nature with equal indifference, and I conceive that this faculty leads to genuine and lively admiration of both."

Sir George is inclined to agree with those who substitute the name of Mirthfulness for Wit. We never were in favour of this substitution ; because thus we should have no specific faculty for perceiving the ludicrous, and *laughing at* the incongruous. Mirthfulness may be produced by good cheer, good fortune, and other causes of agreeable feelings ; but the ludicrous produces a kind of laughter well distinguished from all others. Man is the only laughing animal. He must have a faculty for this distinguishing impulse.

When treating of the intellectual faculties, the author, considering Weight or Force in its order, says, "The next faculty has been called that of Weight, or Resistance, or Force, which last seems to be the most general term that can be employed to denote it ; for weight is the force of gravitation, and resistance is a sense of something opposing force. By comparing degrees of the force of gravitation excited on different bodies, or different masses of the same body, we come to know what we call their different weights. We commonly measure forces by weight, by ascertaining what weight is necessary to overcome resistance. It is the activity of this faculty that enables us to learn by experience to judge what amount of force is needed to overcome any obstacle, or effect any purpose. We do not, after experience, employ so much force to move a ball of cork as one of lead. The faculty, then, seems to give us the knowledge and use of

muscular force or power, and of all other forces, whatever may be their origin, and teaches us to estimate and how to use them. The sense of touch is apparently resolvable into that of force, as it operates only by resistance to force. But I will not detain you with such discussions. If you look into the *Phrenological Journal*, you will find some papers on the subject by my friend Mr Simpson and myself, and I believe we are at last pretty nearly agreed." Mr Simpson considers Resistance a passive sense, and Force an active faculty; but not resolvable into each other. We recommend to Sir George Mackenzie's particular examination the speculations of Mr Richard Edmondson of Manchester on this interesting subject, vol. ix. pages 142 and 624 of this *Journal*.

Some homely and valuable truths are told with regard to the irrational manner in which languages are forced, by rewards and punishments, upon multitudes who lack the faculty of Language. Speaking of the pain and labour so perversely infused into education, Sir George says, in his own peculiar manner:—"Much may be done by making learning a thing of amusement. And here it may be remarked, that I have seldom met with a schoolmaster without a grave face, and apparently almost incapable of smiling. If ever it falls to my lot again to chuse a schoolmaster, the chief test of his qualification shall be his being able to tell a funny story, and being disposed to laugh and make merry. The corners of his mouth shall turn up, and not down. Instruction should be a thing of delight and amusement, not of labour and terror. I have suffered, and many of you may also have suffered, much terror, labour, and pain for the sake of the dead languages; and have gained nothing from it in after life."

The distinctive functions of Comparison and Causality are remarkably clearly stated, though perhaps nothing new is advanced. In treating of Causality, the author makes some forcible remarks on the qualifications of a legislator. "When Causality is feeble, the mind cannot enter into the abstractions of science, or the intricacies of business. In such a case, remote and contingent things are not perceived, and the profound investigations of Causality are deemed little better than dreams and impossibilities. In this we find the cause of imperfect legislation and inefficient government. The ambition which Love of Approbation excites, leads men to undertake what they cannot perform. Instead of examining into the dependence of one thing on another, they resort to temporary means of effecting an object, which may for a moment succeed, but end in making bad worse. Were our legislators well informed of things, and their relations to each other; if they knew man, and the relation in which he stands to external things; if they felt the imperative demands of Conscientiousness, and rose above their petty selves; they

would not tamper so much with the welfare of society, nor risk its peace and security. If well stored with the knowing and reflecting powers, six men would represent our community better than 600 ill-provided with aught but prejudice and party spirit."

There is much useful practical instruction in the sections "On the Mutual Influence of the Faculties," "Religious Feeling," "Direction of the Faculties," "Motives of Action," and "Temperaments." Under the second of these heads, Sir George Mackenzie attributes the predominance of mere feeling in religion, over rational practical views, to the too early inculcation of doctrines. He says, "There exists great diversity of opinion in regard to the interpretations to be given to the contents of the Bible, which are the foundations of the various doctrines that divide Christians. There seems no prospect of a perfect union; and this will be more and more distant, while peculiar doctrines are infused into the minds of the young, before they are capable of judging for themselves, or understanding what they are commanded to believe. In this matter each sect must be left to itself, until knowledge shall be increased, or it shall please God to interpose and point out truth from error." For "Motives" and "Temperaments" we must refer to the work itself.

On the whole, we think this volume well entitled to a place among the elementary guides in the study of Phrenology. We are not sure if it be not of a nature to induce us to recommend it as the first in order which should be put into the student's hands. It is, as we formerly observed, throughout attractive, and less calculated to excite prejudice than the organology offered at once. To the study of the organology it will nevertheless lead. Besides its intrinsic excellence, its extreme cheapness ought to secure for it an extensive circulation. No teacher of youth should be without it.

ARTICLE III.

PHRENOLOGICAL CONTROVERSIES.

It would be refreshing to hear new arguments adduced against Phrenology; but this is a gratification which, in these days, never falls to our lot. For several years Phrenology has been assailed only with weapons shattered and blunted in previous warfare, each new opponent coming boldly into the field with a firm reliance on their irresistible power. It is in truth ludicrous to see arguments which have been repelled again and again borrowed from the works of preceding antiphrenologists, and triumphantly flourished, without the slightest allusion to the replies which have been made to them. This probably arises in some cases from dishonesty, but in others may be the result

of ignorance. For the benefit, therefore, of all who design to attack Phrenology with artillery which has already been in the field, we subjoin a list of the principal aggressive and defensive champions, with references to the places in which the controversy has from time to time been carried on. After examining both sides of the question, they will perhaps feel disposed to exhibit their skill in some more profitable arena.

Dr JOHN GORDON. *Edinburgh Review*, 1815, No. 49; and *Observations on the Structure of the Brain*, Edinburgh, 1817.—Answered by Dr Spurzheim, *Examination of the Objections made in Britain against the Doctrines of Gall and Spurzheim*, Edinburgh, 1817; and by an anonymous writer in the *Medico-Chirurgical Journal*, 1817, vol. iv. p. 53, 117; see also vol. iii. p. 425.

Dr P. M. ROCKET. *Supp. to Encyc. Brit.*, article *Cranioscopy*.—Answered by Mr G. Combe, *Essays on Phrenology*, Edinburgh, 1819, p. 62; also by Dr Andrew Combe, *Phrenological Journal*, i. 165.

Mr DUGALD STEWART. Correspondence between him and Sir G. S. Mackenzie, in 1821, published in the *Phren. Jour.* vii. 303.

Dr JOHN BARCLAY. *On Life and Organization*, Edinburgh, 1822, sect. 17.—Answered by Dr A. Combe, *Trans. of the Phren. Soc.*, Edinburgh, 1824, p. 393.

Dr EDWARD MILLIGAN. *Transl. of Magendie's Physiology*.—Answered in *Phren. Jour.* i. 490.

Professor RUDOLPHI. *Grundriss der Physiologie*, Berlin, 1821-3.—Answered by Dr A. Combe, *Phren. Jour.* i. 592.

Dr J. C. PRICHARD. *On Nervous Diseases*; also *Cyclop. of Prac. Med.*, article *Temperament*.—Answered by Dr A. Combe, *Phren. Jour.* ii. 47, viii. 649, and ix. 48.

Lord JEFFREY. *Edin. Rev.* 1826, No. 88.—Answered by Mr G. Combe, *Letter to F. Jeffrey, Esq.*, Edinburgh, 1826, reprinted in *Phren. Jour.* iv. 1; and *Second Letter*, *ibid.* p. 242; also by Mr Richard Chenevix, *For. Quart. Rev.* No. 3, and Dr Caldwell, *Elements of Phrenology*, second edition, pp. 1-59.

Sir WILLIAM HAMILTON. Correspondence with Dr Spurzheim, Mr G. Combe, &c. *Phren. Jour.* iv. 377, and v. 1, 153, 163. Also *Experiments on the Brain*, prefixed to *Monro's Anat. of the Brain*, Edinburgh, 1831. The latter answered by Mr H. C. Watson, *Phren. Jour.* vii. 434.

Rev. R. W. HAMILTON, Leeds. *Essay on Craniology*, London, 1826.—Answered by Mr William Wildsmith in *An Inquiry concerning the Connexion between the Mind and the Brain*, &c. London, 1828.

M. MAGENDIE. *Physiology*, p. 113, &c.—Answered by Dr John Elliotson, *Phren. Jour.* v. 92.

Dr JOHN BOSTOCK. *Elementary View of Physiology*, iii. 263.
—Answered by Dr Elliotson, *Phren. Jour.* v. 96.

Mr T. STONE. *Evidences against the System of Phrenology*, Edinburgh, 1828; answered by Dr James Kennedy of Ashby-de-la-Zouch, in *London Med. and Surg. Jour.* i. 153, 249, 349, 435; ii. 46, 180, 507.—Obs. on the Phrenological Development of Burke, Hare, &c., Edinburgh, 1829; answered by Mr G. Combe, *Phren. Jour.* vi. 1; see also pp. 93, 180, 232, 234, 317. Mr Stone published a Rejoinder to the Answer of George Combe, Esq. &c. Edinburgh, 1829.

Dr JOHN WAYTE. *Antiphrenology*, London, 1829.—Answered anonymously in *An Exposure of the Unphilosophical and Unchristian Expedients adopted by Antiphrenologists for the purpose of obstructing the Moral and Philanthropical Tendencies of Phrenology*, London, 1831.

Sir CHARLES BELL. *Anatomy*, fifth edition, i. 189; answered in *Phren. Jour.* viii. 333.—Also *Phil. Trans.* cviii. 306; answered by Dr Spurzheim, *App. to Anat. of Brain*, or *Phren. Jour.* vi. 606.

FOREIGN REVIEW, No. 8, 1829.—Answered by Mr G. Combe, *Phren. Jour.* vi. 222.

Mr JAMES MONTGOMERY, Sheffield. *Essay on the Phrenology of the Hindoos and Negroes*, London, 1829.—Answered by Dr Corden Thompson, Sheffield, in *Strictures on Mr Montgomery's Essay*, annexed thereto.

EDINBURGH WEEKLY JOURNAL, 1829.—Answered by Mr G. Combe, *Letter on the Prejudices of the Great in Science and Philosophy against Phrenology*, *Phren. Jour.* vi. 14, 211.

NORTH AMERICAN REVIEW, No. 80, July 1833.—Answered by Dr Caldwell, *Annals of Phren.* i. 1.; also by Mr R. Cox, *Phren. Jour.* viii. 638.

CHRISTIAN EXAMINER, Boston, Nov. 1834, article *Pretensions of Phrenology examined*.—Answered in *Annals of Phren.* ii. 1, and *New England Magazine* for March 1835; likewise by Dr Caldwell, *Phrenology Vindicated*, &c. Lexington, Kentucky, 1835.

It deserves to be remarked, that some of the more eminent and well-informed antiphrenologists, while they seem to regard their own refutations as unanswerable, speak very lightly of those of their predecessors. Dr Prichard, for instance, states that "nearly all that has been said of late by English writers on this the (antiphrenological) side of the question was advanced many years since in the most forcible manner, by the author of a critique in the *Edinburgh Review* (Dr Gordon). Similar objections," he adds, "are still frequently repeated, though most persons have become, or might have become, aware of their inconclusiveness. It must, for example, be evident to those who reflect

upon the subject, that the arguments against Phrenology founded on the difficulty of applying measurements to particular portions of the brain, is no objection at all against the truth of the doctrine itself, or the principle on which it is founded. With equal justice might the obstacles arising from the imperfection of instruments, or from states of the atmosphere, which interfere with the observations of astronomers, be urged as invalidating the most noble of human sciences. Not less ill-judged have been the attempts of those who have argued against the speculations of the phrenologists on the ground of their dangerous tendency, and the alleged fact that they lead to fatalism and destroy moral responsibility. The pernicious results to be deduced from any new and specious doctrine are not reasons for shutting our eyes against the evidence on which it rests, but ought rather to render us more anxious to sift the matter to the bottom. If the thing be true, let this be known: '*fiat justitia; ruat cælum.*' The real merits of the case will sooner or later be made apparent, and the sooner the better." (Cyclopædia of Practical Medicine, 1835, article *Temperament*, vol. iv. p. 168.) Dr Bostock, also, in speaking of the strictures which have at various times been published on Phrenology, says, "It must be acknowledged that they have been more characterized by the brilliancy, or perhaps flippancy, of their wit, than by the soundness of their arguments: it would seem, indeed, that the writers did not regard it as a subject for serious consideration." (Elementary System of Physiology, second edition, 1830, iii. 276.) He excepts from this censure Dr Roget's article on Cranioscopy in the Supplement to the Encyclopædia Britannica, which, says he, "is truly characteristic of the cultivated and candid mind of its author." We doubt whether any unbiassed person who has carefully perused the answers which were made to Dr Roget's article will concur in this laudatory remark; and we know Dr Bostock's candour and acuteness too well to suppose that when it was penned he had looked at more than one side of the controversy. For Dr Roget's talents and attainments we, in common with the mass of his educated countrymen, entertain a high respect; but we must be permitted to add, that his article in the Encyclopædia indicates unequivocally that before writing it he had not bestowed upon Phrenology that patient study without which no man, however eminent his abilities and general knowledge, can render himself qualified to form a correct judgment on the questions at issue.

ARTICLE IV.

OBJECTIONS TO DR SPURZHEIM'S CLASSIFICATION AND NOMENCLATURE OF THE MENTAL FACULTIES. BY ROBERT COX.

EVERY mental faculty is capable of acting in various forms, or susceptible of various modifications; in other words, it may exist in different states, each giving rise to a distinct variety of consciousness—a distinct affection of the mind.* The sense of feeling, for example, is one of the fundamental faculties, but the consciousness resulting from its activity is modified according to the particular state in which its organs happen to be, from the influence of some external or internal cause. Thus, when we hold our fingers near the fire, the sensation of heat arises, and this is one affection or mode of action of the faculty. If we prick the skin with a needle, the affection is that of pain. Tickle the soles of the feet, and the sensation of itching follows: dip the hands into melting snow, and the sensation of cold is experienced. All these affections, it will be observed, are referrible to one faculty alone; they are modes of action of a single power. Man has not been endowed with a faculty to render him conscious of pain, another to produce the sensation of tickling, a third for heat, and a fourth for cold. All these affections are included within the general and comprehensive faculty called *the sense of feeling*.

The affections or modes of action of the fundamental powers are divided by Dr Spurzheim into *qualitive* and *quantitive* affections; that is to say, first, those which differ in kind, as the sensation of heat differs from the sensations of pain, cold, and itching; and, secondly, those which differ in intensity or power. The sense of taste, for example, is, like that of feeling, subject to modifications, giving rise to different affections or states of consciousness. According to the nature of the substances taken into the mouth, the affection is that of sweetness, bitterness, sourness, acritude, and so on. These are *qualitive* affections of a single faculty—affections different in kind, and not merely in degree. The sense of smell, in like manner, is modified when stimulated by different odoriferous substances; and that of hearing is variously affected by different sounds, as shrill, grave, creaking, and whistling. So also the sentiments of pride and contempt are two *qualitive* affections of the single faculty of Self-Esteem.

* I employ the word *affection* as it is used by Dr Spurzheim, "solely according to its etymology, to indicate the different states of being affected of the fundamental powers." See his *Philosophical Principles of Phrenology*, p. 43. In this article the last (American) editions of Dr Spurzheim's works are quoted.

In surveying the various qualitative affections of the fundamental powers, it will be perceived that certain affections are attributes or modes of action of every one of them ; that certain other affections are common to several faculties, but not to the whole ; that others again are peculiar to one individual power ; and, lastly, that some are compounded of affections of a plurality of faculties.* Let us consider each of these classes of affections in detail.

The first subdivision includes *general* affections, or those common to all the fundamental faculties, whether feelings or intellectual powers. "A general quantitative mode of action or affection," says Dr Spurzheim, "is *desire* : each faculty being active desires ; hence there are as many sorts of desire as fundamental faculties. The sensations of *pleasure* and *pain* are two sorts of general qualitative affections ; they are effects, and happen, the former if any faculty be satisfied, the latter if its desire be not complied with. There are consequently as many kinds of pleasure and of pain as individual faculties."†

The second subdivision of qualitative affections comprehends those which are *common to several faculties but not to all*. Thus, remorse is common to every moral faculty, but is an attribute of none of the other powers ; and in like manner, all the intellectual faculties, and they alone, are susceptible of the affections or modes of action, called perception, attention, memory, and conception.

Special affections, which form the third subdivision of the qualitative modes of action, are those which belong exclusively to individual powers. Thus, the affection of courage is peculiar to Combativeness, pride to Self-Esteem, and compassion to Benevolence.

The fourth subdivision embraces *compound* affections, or those which result from the combined action of a plurality of faculties. Envy, for instance, is a compound affection, being made up of Self-Esteem and some other faculty which desires, such as Acquisitiveness, Philoprogenitiveness, or Love of Approbation, both in disagreeable action. Add Cautiousness to the same elements, and jealousy is produced. Thus, also, anger appears to be a compound affection—the result, namely, of Destructiveness acting along with some other faculty disagreeably affected.‡

Having thus considered the nature of the *qualitative* affections, let us now turn to the *quantitative*, which are no other than the qualitative existing at different points in the scale of intensity, quantity, or power ; a single qualitative affection often receiving different names, according to the degree of its force. Thus,

* See Dr Spurzheim's Phil. Prin. of Phren. p. 43.

† Loc. cit.

‡ See vol. ix. of this Journal, p. 501.

one general qualitative affection receives at various points in the scale of intensity the names of velleity, desire, longing, and passion; one general qualitative affection of Acquisitiveness or Love of Approbation is called at a certain point pleasure, at another joy, and at a third ecstasy; while another general qualitative affection of the same faculties is termed on one occasion pain, on another grief, and on a third wretchedness or misery. The special qualitative affection of Cautiousness called *fear* includes the quantitative affections of wariness, apprehension, anxiety, terror, and panic.

Each fundamental faculty having in this way a variety of affections or modes of action—there being so many qualitative affections of each, and many of these being subdivisible into several quantitative affections, each having its appropriate name in the common language of the people—it becomes a matter of great difficulty to frame a correct nomenclature of the fundamental faculties themselves. In the case of those faculties, the sphere of whose action is plain to every ordinary observer, and which were in no danger of being confounded with their affections or modifications, men have in all ages given distinctive names both to the faculties and to their various affections. The English word *Taste*, or its synonymes in other languages, has always been the name of that fundamental faculty of which the perceptions of sweetness, sourness, and bitterness are affections; and a like remark is applicable to the word *Smell*, which is universally understood to comprehend the opposite affections arising from perfumes and fetid carrion. In those cases, however, where the connexion of the faculty with its organ was not apparent, the fundamental powers to which many affections ought to be referred were utterly uncertain—and, the things being unknown, of course names for them were not invented. In this way it has happened, that on most occasions when a faculty was discovered by phrenologists, the invention of a term whereby to designate it became necessary. Hitherto the custom has been to give it a name denoting the most remarkable special qualitative affection of which it is the seat; every term denoting a *general* or a *common* affection—such as *desire*, *emotion*, and *memory*—being rightly discarded. It is obvious, however, that the nomenclature actually adopted is by no means free from imperfection; since, as Dr Spurzheim remarks, the name of a faculty ought to “express the whole sphere of its activity.”* As the faculties were originally discovered by observations made on persons in whom they were very strong by reason of an unusual development of their organs, Dr Gall naturally designated them by the ordinary name of the *passion* or *strong affection* displayed; and hence we read in his work of such faculties as cunning, pugnacity, vanity, covetousness, and pride. Dr Spurzheim, descend-

* Phrenology, p. 151.

ing in the quantitative scale, fixed his attention upon the *ordinary* manifestations of the faculties rather than on the results of their excess; and hence in his publications we read of Secretiveness instead of cunning, Destructiveness instead of the propensity to kill, and Self-esteem instead of pride.

Still, however, I would humbly suggest, that even the improved names of Dr Spurzheim do not in every instance include all the affections of the faculties to which they are applied, as "the sense of feeling" includes the affections called the sensations of heat, cold, and pain.

It happens with many of the faculties that their affections are of two kinds: 1st, an *inclination* or propensity to act in a particular way; and 2dly, certain *emotions* or sentiments which accompany, but are easily distinguishable from, propensity. Thus, one affection of Acquisitiveness is an inclination to take possession of property and to hoard it up, while another is the sentiment of greed. Self-Esteem is the source of an inclination to wield authority, and at the same time of the emotion which its name denotes, including the various quantitative affections of self-satisfaction, self-reliance, self-importance, pride, and overweening arrogance. Contempt, which is a qualitative affection of the same faculty, falls, like the emotion named self-esteem, within the second or sentimental class of affections. Upon the existence of these two kinds of affections Dr Spurzheim has founded an important part of his classification; and to it the attention of the reader is now solicited.

Gall and Spurzheim agree in dividing the mental faculties into two great orders, the first comprehending what are termed the dispositions, and the second the powers of the understanding. This division has been recognised from the remotest antiquity, under the names of soul and spirit (*l'âme et l'esprit*), will and understanding, the moral and intellectual faculties, heart and head. Dr Spurzheim calls the former the *feelings* or *affective faculties*;* of which, says he, "the essential nature is to feel emotions;"† and the latter the *intellectual faculties*, whose "essential nature is to procure knowledge."‡ To the designation *intellectual faculties* it appears impossible to object; but as it is by no means evident that emotions are peculiar to the faculties called affective, the use of that term as defined by Dr Spurzheim, seems to be improper. In fact, many general emotions are modes of action of the intellectual as well as of the affective powers. Every faculty, without exception, desires; and what is desire but an emotion? Every faculty experiences pleasure and pain, and what are these but emotions? Take the sense of taste as an example. This, being an intellectual faculty, experiences, according to Dr Spurzheim, no emotion; but, as Dr Hoppe of Copenhagen has already

* Phrenology, p. 131.

† Phil. Prin. of Phren. p. 48.

‡ Ibid. p. 52.

inquired, "when we sit down, delighting in the dainties of a well-stored table, is not then the working of the sense wholly affective?"* I propose, therefore, to define the affective faculties as those of which the essential nature is to feel emotions, or inclinations, or both, but which do not procure knowledge.

Dr Spurzheim's classification, however, does not stop here. "Both orders of the cerebral functions," says he, "may be subdivided into several genera, and each genus into several species. Some affective powers produce only desires, inclinations, or instincts; I denominate them by the general title *propensities*. The name *propensities*, then, is only applied to indicate internal impulses which invite to certain actions. They correspond with the instincts or instinctive powers of animals. There are other affective faculties," he continues, "which are not confined to inclination alone, but have something superadded that may be styled *sentiment*. Self-Esteem, for instance, produces a certain propensity to act; but, at the same time, feels another emotion or affection which is not merely propensity."† The affective faculties named by Dr Spurzheim *propensities*, are Amativeness, Philoprogenitiveness, Inhabitiveness, Adhesiveness, Combativeness, Destructiveness, Secretiveness, Acquisitiveness, and Constructiveness; those which he calls *sentiments* are Self-Esteem, Love of Approbation, Cautiousness, Benevolence, Veneration, Firmness, Conscientiousness, Hope, Marvellousness, Ideality, Mirthfulness or Gayness, and Imitation.

To Dr Spurzheim's division of the affective faculties into propensities, or mere tendencies to certain modes of action,—and sentiments, which are propensities with emotions superadded,—I offer no objection, except that, as will be shewn in the sequel, a third genus ought to be introduced. But when the claims of the individual faculties to be ranked in one or other of the subdivisions are narrowly scrutinized, I fear that much inaccuracy becomes apparent.

Judging from the present state of our knowledge of the fundamental powers of the mind, the whole of the affective faculties, with the exception of only five, seem entitled to be called *sentiments*, taking that word as it is defined by Dr Spurzheim. These five exceptions I conceive to be—1st, Constructiveness, which is understood to be a mere inclination or tendency to fashion or configure, without, so far as I can see, any special emotion superadded to it; 2dly, Imitation, which is in exactly the same predicament, though classed as a sentiment by Dr Spurzheim; and, finally, Love of Approbation, Hope, and Ideality, which appear to be mere special emotions, superadded to no propensity whatever. Except these five, I repeat, the whole affective faculties seem to be propensities, tendencies, or inclinations, having emo-

* Phren. Jour. iv. 308.

† Phrenology, p. 131.

tions annexed to them. This position it will be proper to demonstrate in detail. In taking a survey of the faculties, I shall notice, first, the sort of actions to which they give a tendency ; and, secondly, the simple affections or emotions by which that tendency is accompanied.

Amativeness includes both a tendency to act in a particular way and a concomitant emotion. The former is the tendency to propagate, and inclination to acts of dalliance in general ; while the latter is the emotion of sexual love. This faculty, therefore, falls within Dr Spurzheim's definition of a sentiment.

Of Philoprogenitiveness the same is true. The tendency is an inclination to associate with, or seek the society of children, and the emotion is love of young. The term Philoprogenitiveness, or love of progeny, seems to me objectionable ; inasmuch as it represents the faculty as bearing relation exclusively to the offspring of its individual possessor, and this whether they be young or adult. It does not appear, however, that the faculty acts in parents toward their grown children ; and there cannot be a doubt that children in general, though not the person's own, are objects in which it takes an interest. I therefore define it the Love of Young. It is difficult to coin an English term to express this idea ; but the German word *Jungenliebe*, employed by Dr Gall, seems unexceptionable.

Concentrativeness needs not be specially discussed, as we are still too little acquainted with its essential nature to say any thing satisfactory regarding its name and classification.

Adhesiveness is a tendency to associate or congregate with our fellow-creatures, and the corresponding emotion is love or attachment between friends. This emotion never exists except in combination with a desire to be in the society of the person beloved.

The next faculty is usually named Combativeness ; but, for reasons formerly published,* I conceive that Opposiveness is a more accurate term. The propensity is not in all cases a tendency to fight, but a general inclination to oppose. The emotion of which the mind is conscious when this tendency acts, is boldness or courage.

Destructiveness is a tendency to injure. The superadded emotion has no name that I am aware of except when high in the scale of quantitative affections. Ferocity is then the appellation which it receives. The emotion is an ingredient in various compound affections, such as anger, jealousy, malice, and envy.

Alimentiveness may be regarded as a propensity to eat and drink. Hunger and thirst are not usually referred to this organ ; but, as I shall endeavour to shew in another article, these seem to be merely the sentimental affections which accompany the desire to feed.

* See Vol. ix. p. 147.

Secretiveness is an inclination to conceal. The emotion, like that of Destructiveness, receives a name only when it is strong. Slyness and suspicion are emotions of this faculty in a state of vigorous action.

Acquisitiveness is a tendency to acquire and hoard property. Cupidity or greed is the emotion when it is very powerful.

Constructiveness is a word that limits too much the faculty which it is meant to designate. To construct is to take detached materials and put them together, so as form a single object out of the whole. Thus, we may be correctly said to construct a house, a machine, or a ship. The faculty, however, goes farther than this; it seems to be a tendency to *fashion* in general—in other words, to alter the shape or appearance of objects—whether by combining detached materials, or by chipping off fragments, or by drawing lines and laying on colours. All these operations are expressed by the comprehensive verb *to fashion*.* As already observed, no special emotion accompanies this tendency; so that it is entitled to be called a propensity in Dr Spurzheim's sense of that word.

Self-Esteem is the name of the emotion arising from the organ No. 10. Self-complacency is almost synonymous with it; and pride is the emotion higher in the scale of quantitative affections of this faculty. The corresponding propensity is a tendency to take the lead, to exercise authority, to attend to self-interest and self-gratification, to prefer one's self to other people.

Love of Approbation is an emotion which assumes the name of vanity when in excess. I am not sure that any propensity accompanies it. It may be said that there arises from it a tendency to act so as to obtain the esteem and admiration of our fellows. But this tendency may be only its indirect result. The desire of the esteem exists, and the intellect may prompt us to act so as to obtain it. Yet it must be allowed that, when very strong, it seems often to lead directly to the abundant employment of praise and flattery. Shame is an affection of this power.

Cautiousness is the emotion of wariness, and, when powerful, of fear. The propensity is to take precautions against danger.

Benevolence is surely not less a propensity than Destructiveness, and no reason appears why they should be classified differently. It is simply a tendency to increase the enjoyment and diminish the misery of sentient beings. The emotions accompanying this tendency are good-will and compassion.

Veneration is a propensity to act with deference, submission, or respect, towards our fellow-men,—to obey those in authority,—

* If the views of Mr Edmondson (vol. ix. p. 624) are correct, Constructiveness is an intellectual faculty, taking cognizance of mechanical force; and the source of the propensity to muscular action.

and to worship the Supreme Being. The emotion is well expressed by the words *veneration* and *deference*, and when in great vigour is called *devotion*.

Firmness I consider to be a tendency to persist in conduct, opinion, and purpose. Resolution is the name which its emotion receives.

Conscientiousness seems to be a propensity to give every man his due. The emotion is the sentiment of justice; and the actions prompted by it are honest, candid, just. I doubt the propriety of calling this faculty the sentiment of right and wrong; for Benevolence and Veneration likewise have the power of discriminating right from wrong in their own spheres, and hence these three faculties are termed moral sentiments. It appears to me that they alone are entitled to this denomination, and that it is incorrect to include along with them, as has hitherto been frequently done, the faculties of Hope, Ideality, Wonder, Firmness, Wit, and Imitation.

Hope seems to be a mere emotion, unaccompanied by any propensity. It can hardly be said to give rise, except indirectly, to a tendency to act in a speculative manner. Acquisitiveness, modified by the emotion of Hope, appears to do this.

Of Ideality it may be safely affirmed that no propensity is connected with it. There is only the lively emotion of the beautiful and sublime.

Wonder is clearly an emotion, but whether no inclination is associated with it may perhaps be doubted. Is it not, for example, a propensity to exaggerate?

The emotion of the ludicrous, which I am at present inclined to regard as a fundamental faculty, wheresoever its organ may ultimately prove to be, appears to be accompanied by a propensity to act comically.—Imitation is a mere propensity, without any special emotion whatever.

This concludes the list of the affective faculties. If we take the guidance of the principle by which Dr Spurzheim was led, they ought, I think, to be divided into three genera instead of two—the first including those faculties which give rise to tendencies as well as emotions; the second, those which are tendencies without emotions; and the third, those which are emotions without tendencies. In the first genus, therefore, we ought to rank Amativeness, Philoprogenitiveness, Adhesiveness, Opposiveness, Destructiveness, Secretiveness, Acquisitiveness, Self-Esteem, Cautiousness, Benevolence, Veneration, Firmness, Conscientiousness, Wonder, and Mirthfulness or the sentiment of the ludicrous. In the second genus—that of tendencies without emotions—I would place Constructiveness and Imitation; and in the third, comprehending mere emotions, the faculties of Hope and Ideality, and perhaps also Love of Approbation.

Such appears to be the classification of the affective faculties, on Dr Spurzheim's principle, warranted by the present state of phrenological science.

With respect to the *nomenclature* of this class of faculties, it may be observed, that, in order to designate a faculty with correctness, the term employed ought to include the whole sphere of its activity, inclination as well as sentiment, and all the modifications which the sentimental part of the function assumes. The word *Benevolence*, for instance, designates only one affection of a fundamental faculty, and leaves pity and the inclination to increase happiness and alleviate misery entirely out of sight. Whether a nomenclature of perfectly comprehensive terms will ever be attained, is a question which I fear must be answered in the negative; for no single word can well express both a sentiment and an inclination, or perhaps even the different sentimental affections of a single power. It may, however, be suggested, that, with the view of preserving uniformity, those faculties which comprehend both an inclination and a special emotion or sentiment, ought, in every case, to receive a name applicable either to the one or to the other; that is to say, it is improper to designate some of them by a word expressive of the inclination, and others by a word which applies to the sentiment. Here the nomenclature of Dr Spurzheim is at fault; and much perplexity has consequently arisen in the minds of persons who have attended closely to the analysis of the mental powers. The words *Amativeness*, *Philoprogenitiveness*, and *Adhesiveness*, though used to designate faculties which Dr Spurzheim calls mere inclinations to act, are in reality expressive of sentiments—namely, three kinds of love; while *Combativeness*, *Destructiveness*, *Acquisitiveness*, and *Constructiveness*, on the other hand, are synonymous with *propensity* to fight, to destroy, to acquire, to construct. The terms *Self-Esteem*, *Love of Approbation*, *Cautiousness*, *Benevolence*, *Veneration*, *Conscientiousness*, *Hope*, and *Wonder*, designate sentiments, but leave inclinations (which some of them are) out of view. *Firmness* is perhaps less expressive of a sentiment than *Resolution*, and rather designates the character produced when the faculty is strong; and to *Mirthfulness* or *Gaiety* a similar remark is applicable. *Imitation* expresses mere propensity.

I do not venture to propose any series of terms capable of realizing the foregoing suggestion. It would be necessary to coin new vocables; and, until analytical phrenology shall have arrived at greater perfection than at present, it appears inexpedient materially to change the nomenclature in general use. All that seems desirable is, that the student should bear in mind the different forms of inclination and sentiment in which facul-

ties designated by limited names display their activity ; and that he should not be led to regard as a mere inclination that which includes also a sentiment, or as solely a sentiment that which is also an inclination—or to consider that a word, significant of a single affection of a faculty, denotes the entire sphere of its activity.

No subdivision of the intellectual powers, or those which procure knowledge, was made by Dr Gall ; but Dr Spurzheim has minutely classified them. “ They may be subdivided,” says he, “ into four genera. The first includes the functions of the external senses and of voluntary motion ; the second, those faculties which make man and animals acquainted with external objects and their physical qualities ; and the third, the functions connected with the knowledge of relation between objects or their qualities ;—these three genera I name *perceptive faculties* : the fourth genus comprises the faculties which act on all the other sensations and notions, and these I style *reflective faculties*.”* Respecting the first and last of these genera I offer no remarks. The second includes Individuality, Form, Size, Weight, and Colouring, all of which, except Individuality, seem rightly classified. The exception of Individuality is here made on the ground that nothing but the qualities of external objects is perceptible, and that by these alone the existence of an object is revealed to us ; so that Individuality, which takes cognizance of no quality, cannot be said to “ perceive ” at all. Its essential nature appears to be, as Dr Spurzheim expresses it, “ to produce the *conception* of being or existence, and to know *objects* in their individual capacities.”† “ I speak,” says he, “ under the name Individuality, of the faculty which recognises the existence of individual beings, which embodies several elements into one being or object, as tree, house, man, army, navy, &c. ; whose activity and presence are denoted by substantives, or abstract terms in language, and which, in all probability, constitutes the personal identity. I acknowledge that objects are inseparable from their qualities, and that these constitute objects ; but I think it possible to conceive an existence or entity without knowing its qualities, as God, the mind.” “ This faculty takes cognizance of all existences, objects, things, and beings.”‡ Dr Spurzheim here studiously avoids the use of the word *perception* ; he speaks only of conception, knowledge, and cognition.

Under the third genus of intellectual faculties—those “ which perceive the relations of external objects ”—Dr Spurzheim ranges Locality, Order, Number, Eventuality, Time, Tune, and Language. In some respects he is here in error. Neither Eventua-

* Phrenology, p. 131.

† Manual of Phrenology, p. 59.

‡ Phrenology, p. 324, 325.

lity, Time, nor Language, is cognizant of relations of external objects; Tune perceives only relations of *sounds*; and, according to the best of our present knowledge, Order is merely (what Dr Spurzheim calls it) a "disposition to arrange," and desire to see every thing in its proper place.

In his "Philosophical Principles," and "Outlines of Phrenology," Dr Spurzheim inconsistently comprehends the second and third genera of the intellectual faculties in one, which is described as embracing the "internal senses or perceptive faculties which procure knowledge of external objects, their physical qualities, and various relations."*

ARTICLE V.

A DREAM.†

"I had a dream, which was not all a dream."—BYRON.

It was on Thursday the 12th of the present month, that having performed the scholastic duties of the day, having partaken of the evening meal, and digested, as I best might, a *quantum sufficit* of Greek, Latin, Trigonometry, Chemistry, Natural History, and French, preparatory to the recitations of the morrow, I took up a newspaper by way of dessert to this literary banquet. Casting my eye on that portion of the sheet wherein are

* Phil. Prin. of Phren. p. 52; and Outlines, p. 59.

† The author of this article is Mr John Newlands of A——, N. Y., who obtained a premium for it as the best composition presented at the semi-annual examination of the A—— Academy in February 1835. We publish it as a clever *jue d'esprit* on one of those itinerant phrenological quacks who are practicing with great success on the gullibility of our American brethren. At the close of a gratis lecture on Phrenology, the individual referred to announced that he had hired rooms where he would examine heads, and furnish notes of cerebral development, at the low charge of 3s. each. He was in consequence kept in full occupation for several weeks, and is said to have pocketed in A—— upwards of 1200 dollars. After exhausting the more wealthy class of citizens, he addressed himself to the lower orders, who congregate nightly at the Museum, a kind of twopenny show, much in vogue among stage-drivers, canal-boatman, &c.; and there he gave lectures and manipulated heads. A number of amusing circumstances grew out of the visit of this charlatan. One of these, alluded to in the Dream in reference to the organ of Causality, is as follows:—A judge in the Court of Common Pleas was among the number of those to whom schedules of their cerebral development were furnished, and, on his way from the place of examination, shewed his schedule to some acquaintances whom he met on the street. Among other wise remarks, he made the following: "There," said he, "Ideality 16; why, that's three higher than he gave Mr Y——: he gave him only 13, and every body knows that Mr Y—— has more ideas than any man in the city. And see, here is *Causality* only 8; well, that's very right too, for I never was liable to accidents!" The illustration of the organ of Wonder alludes to the crowds of all grades who were attracted by the pretensions of the quack.—EDITOR.

usually announced the amusements of the day, I perceived that in addition to the ordinary entertainments at the Museum, a lecture was to be delivered on the advantages of Phrenology; and having understood that, since the visit of the lecturer to our ancient city, he had *himself* reaped much *advantage* from the science, I doubted not his capability of explaining these satisfactorily to the enlightened audience this announcement would collect at this place of fashionable resort.

Forthwith I held a consultation with my purse—"to go or not to go, that *was* the question,"—"my poverty and not my will *consented*," and therefore I went—not to the Museum—but to bed, where I presently fell into a profound sleep; and, as it frequently happens that the last waking thought continues to occupy the mind when the body is in perfect repose, no sooner was I comfortably wrapt in the arms of Morpheus, than busy fancy transported me at once to the lecture-room, full of higher hopes and brighter expectations than the reality could have produced. For methought, ere the curtain arose, it was announced that the lecture was to consist of a full explanation of all the mental faculties, illustrated by appropriate emblems and devices, which had been prepared, adapted, and arranged at great pains and expense, and which it was hoped the public would appreciate, and for which they would, with their accustomed liberality, compensate the "spirited and indefatigable proprietor."

After a brief delay, the curtain arose, and a scene presented itself more brilliant and novel than waking fancy could possibly have suggested. That portion of the room within the proscenium, appeared of great extent; it assumed the form of a human head of mammoth size and proportions, each faculty being represented by some suitable device, either adopted from the stock attractions of the Museum, or prepared with much ingenuity for this particular occasion.

Like many other allegorical representations of ancient as well as of modern times, the uninitiated would perhaps have been left in doubt of their true meaning, had not the name of each development accompanied the emblem. Strong as was the impression on my dreaming imagination, a few particulars have escaped my memory. Such as I best remember I shall endeavour to describe, beginning with the propensities, and ascending to the sentiments and intellectual faculties. I ought, however, in the first place, to mention, that the *generic* term of *Organ* was suitably represented by the ancient instrument of that name belonging to the establishment, the dulcet tones of which are so well known to the inhabitants of this city, and so grateful to the ears of the residents in its present, as well as in its former vicinity: It was placed in front of the stage, and played "*Scots wha hae wi'*

Wallace bled," "Hail Columbia," and "Yankee Doodle," in the most inspiring manner.

To begin with the propensities. Adhesiveness was admirably represented by the Siamese Twins, brought from their *fixed* place of residence among the other members of the wax-work family.

A huge hen, clucking over a mighty brood of chickens, represented Philoprogenitiveness; while Concentrativeness was indicated by a burning-glass or convex lens, large enough to have fired the fleet of Marcellus at the siege of Syracuse, and which probably belonged to the ancient philosopher Archimedes.

Destructiveness was represented by a tiger tearing a deer; but here the organ was not indicated by the width of the head only—the moth had been busy on the skins of both deer and tiger, and they were falling to pieces under the influence of this terrible propensity. To represent Combativeness, there was displayed, in the proper position, a picture of the renowned Don Quixote, knight of La Mancha, running a tilt against the wind-mills.

Constructiveness had for its emblem a model of a perpetual motion, which stopped before it was fairly set a-going, and which, but for the influence of *gravitation*, and a few other preposterous laws of nature, would doubtless have continued to move from generation to generation.

Secretiveness was suitably represented by a group of school-boys, one of whom cast a furtive glance from time to time beneath the desk at which he sat, to his open book, while he recited a long and difficult lesson; while another on his right, who seemed intently studying his task, slyly pinched a class-mate who sat on the left of the speaker, which last, by a false accusation, brought the vengeance of the teacher on an innocent and unoffending companion. A parrot, which constantly repeated the words "pretty Poll," was the emblem of Self-Esteem; and a peacock, with its wide-spread tail and gaudy colours, represented Love of Approbation. An ostrich, with its head thrust in a hole, indicated Cautiousness; and a water-dog, shaking its wet and curly coat amid a group of ladies, on what seemed to be the deck of a steam-boat, represented the sentiment of Benevolence.

Perched on the very centre of the coronal surface of this imaginary head, was the Egyptian mummy, to represent Veneration, because, as a scroll informed the spectators, it was the most venerable relic in the whole collection of 175 thousand curiosities.

A man buying a lottery-ticket indicated Hope, and the organ must have been large, as it was a whole ticket.

Marvellousness was represented by a crowd of men and wo-

men, with open mouths and goggling eyes, gazing at a heap of *Charts*, containing certain signs and numbers. "*Price three Shillings*" was written conspicuously upon each: there were plenty of purchasers, all of whom seemed mightily pleased with their acquisition.

A wooden bench represented Form, and upon it, as the emblem of Weight, was seated the well-known figure of Daniel Lambert;—it is needless to say the organ was large. An immense crowd gathered round a gibbet, was the manner in which Number was indicated; and the portrait of a red-faced personage which occupies a conspicuous place in the picture-gallery of the Museum, was the representative of Colour.

A monkey shaving himself at a looking-glass gave the idea of Imitation, and a clown laughing at the monkey, till tears coursed down his cheeks, indicated a sense of the ludicrous.

Causality was represented by a china tea-pot with a broken spout. This appeared altogether unintelligible, till it was observed that the organ was here called Casualty, china tea-pots being peculiarly liable to accidents. Some inquiries being made respecting this apparent perversion of meaning, the exhibitor assured the audience he had high *legal* authority for it; this statement satisfied all the parties concerned.

The last organ of which I can bear in mind the emblem, was Comparison, which was represented by a picture of the Museum, and a scroll stating that it would bear a *comparison* with any collection of the kind in the United States, having for exhibition no less than 175 thousand curiosities of nature and art, besides the lecture-room, and the view of the city and the adjacent country from the balcony.

Sufficient time having been allowed to examine and understand all the points aimed at in the above arrangements, the lecture was about to commence, when suddenly, methought, on the organ striking up Yankee Doodle for the seventeenth time, the various emblems and devices began, "as if instinct with mercury," to skip and dance, to twist, and turn, and change places, down the middle and up again, hands across and cast off, in such a variety and intricacy of movement, as would have put to shame the dancers at Stanwix Hall on the night of an Assembly: Sentiments were confounded with propensities, the perceptive mingled with the reflective faculties; the Siamese Twins waltzed superbly; the very mummy, swathed with the bandages of a thousand years, skipped like a harlequin—order was changed to disorder, and Time and Tune usurped the supremacy. To crown the whole, the example became contagious, the audience capered and bounded in one mingled mass. For myself, although I felt perfectly sensible of the absurdity of the scene, yet I also joined in the dance with the most joyous glee, till

I fell to the ground, borne down by the superincumbent weight of Daniel Lambert, whom I encountered in one of the convolutions, frisking like an elephant, and only escaped suffocation by awaking from my dream.

SOMNIATOR.

ARTICLE VI.

ANSWER to Mr HANCOCK's Reply to Mr WATSON's Comments on his Letter on the Functions of Comparison and Wit, in the 48th Number of the Phrenological Journal.

IN No. 48. of the Phrenological Journal, Mr Hancock has given a reply to certain comments made by me upon his "Letter on the Functions of Comparison and Wit." Were I to designate this Reply as an effusion written in a tone neither very elevated nor very philosophical, I might appear to be assuming the office of judge without sufficient freedom from personal bias, and be merely pronouncing an *ex parte* opinion; but, in saying that the five pages of reply contain twice their own number of errors, in fact or in reasoning, I can be called on for proofs of the assertion. At present I decline to enlarge upon these, in the presumption that neither editors nor readers of the Phrenological Journal could be at all benefited by criticisms upon opinions, the only evidence of whose correctness lies in the thoughts and feelings of the author of the Reply. Mr Hancock seems to promise "a full and fair examination of the grounds of Mr Watson's own opinions with regard to the true functions of those organs." If Mr Hancock will really limit himself to these *grounds*, and direct inferences from them, such an examination will be gladly received, and may prove useful; but it is necessary to keep steadily in view the reasonable presumption that others do not care a straw what *his* opinions, or *my* opinions, may happen to be, in such a question as is now before us. The public can be interested only in the grounds (facts and inferences) on which our respective opinions are built up. These grounds are important, since a correct estimate of the functions of the reflecting organs must hereafter enter largely into systems of logic, and all questions of moral science. I will, therefore, briefly state the course followed in obtaining my own conclusions, and any person desirous of correcting them must do so by adducing contradictory facts, or by shewing the inferences to have been drawn illogically.

By comparing the developments of several authors and private acquaintances with their styles of writing and thinking, I came to the conclusion that *Comparison* was only a mental process, and ought to be classed with perception, conception, me-

mory, imagination, and other terms which appear to express a state of functional activity, not the kind of ideas formed in the cerebral organs. This conclusion was forced upon me by finding that the tendency to compare was not always in proportion to the development of the organ named Comparison, and that the sense of resemblance and difference, like that of memory, was always manifested most strongly in the ideas presumed to be formed by the largest organs. The next step was to ascertain the *kind of ideas* existing or formed in the organ hitherto called Comparison. On carefully examining the works of authors in whom this organ was predominant, I believed to have detected a peculiar tendency to describe and to compare certain trains of ideas, touching the condition or states of external nature and internal feelings; while the works of others, in whom this organ was moderately developed, were comparatively devoid of such tendency, but were prone to describe and compare other trains of ideas. Hence came the suggestion of this organ taking cognizance of such ideas, and remembering and comparing those ideas, just as Form is said to remember and compare shapes. Although the works of Spurzheim do not give this view, his own ideas about the function of the organ seem to have approximated to it; because, in reply to Mr Combe's epistolary intimation of my conclusions, he wrote, "Comparison compares conditions or states, and conditions or causes. Its essential result is generalisation and discrimination." Mr Hancock says, that my term "conditions" does not convey to his mind any very distinct ideas. The fault may be personal, not verbal, as it appears that Spurzheim distinctly comprehended the ideas that it should excite. I differ from Spurzheim and Mr Scott in still thinking that each organ (or pair of organs) generalises and discriminates its own ideas only. The heads of several persons eminent in the physical sciences evince only a moderate development of Comparison, yet these sciences require generalisation and discrimination to a great extent. Half the science of Botany, and almost the whole of Entomology, turn on discriminations of objects nearly alike, or in uniting them into general groups in accordance with certain resemblances in their physical properties. Why, therefore, is the organ of Comparison not always large in eminent botanists and entomologists, if this organ be necessary to generalisation and discrimination of all kinds of ideas alike? Again, if Comparison "compares conditions or states," what organ perceives and remembers them?

A similar course of observation and reasoning was followed in respect to the organ called Wit; but with results very far from satisfactory; and I cordially assent to Mr Combe's remark, that "the facts adduced are much too few for forming a judgment on the question." The utility of putting forth for

public scrutiny, and inviting attention to, results drawn from few facts, is sufficiently obvious. Others are thereby induced to make observations; and whether two, ten, or a hundred observers be aroused, they are much more likely to arrive at truth than a single individual, whose early conclusions must, in some degree, bias his subsequent observations in the matter. In conclusion, I will reiterate my remark as to the necessity of keeping to facts and direct inferences, in inquiries respecting the functions of the organs. Mr Scott's papers, on the functions of Wit and other organs, were excellent as literary or speculative essays; but the fatal error of generalising the descriptions of poets and metaphysicians, instead of comparing manifestation and development, pervades them all. They are bad models for a phrenologist investigating functions, good models for one describing functions already well ascertained. I allude to Mr Scott, because Mr Hancock refers to his papers authoritatively, and falls into the same mistake of being "a moral reasoner," instead of a phrenological observer. Moral reasoning is all very well in its proper place and time; but it should *follow* observation, in the present state of phrenological science.

HEWETT WATSON.

[We are disposed to think that the controversy between Messrs Hancock and Watson has now proceeded sufficiently far, and that, until time shall have been afforded for putting their views extensively to the test of experience, no valuable end will be served by continuing the discussion.—Ed.]

ARTICLE VII.

T H O U G H T S O N P H Y S I C A L E D U C A T I O N , A N D T H E T R U E M O D E O F I M P R O V I N G T H E C O N D I T I O N O F M A N ; A N D O N T H E S T U D Y O F T H E G R E E K A N D L A T I N L A N G U A G E S .
By CHARLES CALDWELL, M. D., Professor of the Institutes of Medicine and Clinical Practice in Transylvania University. With NOTES by ROBERT COX, and a RECOMMENDATORY PREFACE by GEORGE COMBE. Edinburgh; Adam and Charles Black, and Longman and Co., London. 1836. Pp. 190.

WE return to Dr Caldwell with great pleasure, in whatever shape he comes before us. He is not only one of the chief pillars of Phrenology—decidedly the chief in the New World—but one of the most philosophical, logical, and powerful reasoners of the present age. There are few of their citizens of whom the United States have more reason to be proud. The volume before us is a republication, on this side of the water,

of his admirable work on Physical Education ; with a not less excellent treatise annexed to it, entitled " Thoughts on the Study of the Greek and Latin Languages." Mr Robert Cox is the British editor, and he has well performed his task ; having introduced into the text select passages from other essays published in a detached form by Dr Caldwell ; especially his " Thoughts on the True Mode of Improving the Condition of Man," nearly the whole of which has been transfused into the present work. Mr Cox has also added notes, and succeeded in presenting a volume to the public, calculated most importantly to advance the cause of human improvement. Mr Combe has introduced the edition by some sound " Introductory Remarks."

Having formerly given an analysis of the treatise on Physical Education,* we shall do no more at present, with respect to that part of the volume, than briefly refer to some matter which was not in the American edition, chiefly Mr Cox's notes. Mr Combe, in his introductory remarks, very properly cautions the reader to keep in view, that Dr Caldwell's work on Education is limited to *training* the human powers, and does not take up the subject of *instructing* them, or communicating knowledge. " He regards education," says Mr Combe, " as a scheme of action by which any living being may be improved, and, by perseverance, raised to the highest perfection of which it is susceptible. The organized system of man constitutes the machinery by means of which his mind operates during life. Every one, says he, admits that the legs and arms may be strengthened and rendered more agile by means of judicious exercise ; and most persons acknowledge that the external senses also may be improved by similar means. The savage, whose ear is cultivated as the means of his safety, hears sounds that are inaudible to a civilized European. But the effect produced in these instances, results entirely from an improvement in the *condition of the organs*. The same may be affirmed with equal safety respecting the higher mental operations. In performing these, the mind operates by means of the brain, as certainly as it does by the eye in seeing, and by the muscles in dancing or fencing. When any form of memory, or the power of reasoning, is increased by judicious training, the mind itself is not changed ; the improvement, in this as in the preceding cases, is confined to the organs by the aid of which the mind remembers and reasons. Physical education, therefore," he adds, " lies at the foundation of all successful training, both bodily and mental." In substance, the rest of Mr Combe's remarks were anticipated in our former review. He says, the work " forms a valuable addition to a class of writings which have of late ac-

* Vol. ix. p. 481.

quired great popularity, both in this country and in America ; including such works as that of Dr Brigham on the Influence of Mental Cultivation upon Health, and Dr Combe on Physiology applied to Health and Education, and on Digestion.* I can safely recommend it in the highest terms to public attention."

Mr Cox calls particular attention to the important subject of the inheritance by the child of the physical, moral, and intellectual qualities of the parent, very satisfactorily treated of by Dr Caldwell ; and says in a note—" The subject here touched upon by Dr Caldwell—the transmission to the child of the qualities predominant in the parents at the time of its production—is one of very great importance, though hitherto almost universally overlooked. Professor Hufeland of Berlin, in his ' Art of Prolonging Human Life,' insists upon it with earnestness (see English translation, London, 1829, pp. 214, 215) ; and it is largely illustrated by Mr Combe in the fifth chapter of his work on ' The Constitution of Man considered in relation to External Objects.' " Dr Caldwell condemns marriages under age—of the old with the young—of the diseased and deformed—of the morally diseased—of near relations—and of the indigent,—as all tending to the degeneracy of the race. On the topic of cleanliness, Mr Cox adds an excellent note to Dr Caldwell's observations (page 26). He recommends the utmost attention to the ablution of the skin. The whole of that part of the work in which Dr Caldwell treats of cradle and nursery education is invaluable, and Mr Cox's notes tend much to elucidate and confirm it. There is a curious note (page 28) on allowing children to exercise their lungs *in crying* ; another (p. 31) on the importance of early moral training, with the authority of Locke, Montaigne, Edgeworth, Mill, and Jeremy Taylor, on the subject. On the point of the early education of the temper, the following observation of Dr Caldwell should be hung up on the walls of every nursery :—" A fiery education in the nursery may heat the brain to the verge of inflammation, and aid in the production of actual inflammation or madness,—impair health in sundry other ways by excessive excitement,—render unhappy the days of others, as well as of the mismanaged individual,—and lay the foundation of a blasted reputation. It is believed that an education of this kind injured immeasurably the late Lord Byron ; and Earl Ferrers expiated on a gibbet the fruit of a similar one."

Mr Cox has a valuable note at page 40, in answer to Dr Caldwell's strictures on *ill-organized* infant schools. It states

* Noticed in this Journal respectively, vol. ix. pages 424 and 74 ; and vol. x. p. 71.

forcibly the views we have often advanced on the value of *properly*-conducted institutions for infant education. A long note follows at page 49, under Dr Caldwell's topic of muscular exercise in the open air, descriptive of the Manual Labour Academy of Pennsylvania. Although chiefly devoted to youths studying for the ministry, the principles of the institution are strictly physiological, and applicable to all descriptions of youth. Mr Cox recommends such establishments to be adopted in this country, which shall alternate useful labour with intellectual study. Lady Noel Byron has the merit of having established one of them at Hanwell in Middlesex for agriculture, which we recently visited, and found answering the most sanguine expectations. Such establishments, we have often thought, and somewhere said, should form adjuncts of properly constituted parish schools. There are notes by Mr Cox on several other points treated of by Dr Caldwell,—such as intellectual efforts beyond capacity, (73);—fanatical insanity;—the statistics of insanity, a subject which, in order to be accurate, demands Government inquiry, (82);—the extraordinary case of Alexis St Martin, the subject of the experiments of Dr William Beaumont, an American physician, on digestion, by means of an aperture made, by a gun-shot wound, into the stomach, which healed but did not fill up, so that the operations of the stomach were visible, and the effects of various agents upon its appearance and functions. Of this extraordinary case, a full account will be found in Dr Combe's "Physiology of Digestion." We cannot too strongly recommend the treatise, as edited by Mr Cox, to the public. No family or school should be without it.

As we have not before noticed Dr Caldwell's treatise on the study of the dead languages, we shall be more full upon that part of the volume. Dr Caldwell possesses one advantage as a judge in this *cause célèbre* of the dead languages now under trial, particularly in this country and America. He has a right to be heard as a witness at least, for he is well informed. He can compare dead-language education with that of the living system of Nature, for he has a thorough knowledge of both. He is a classical scholar as well as a sound philosopher, and is moreover skilled in several modern languages. He shuts the mouth of the Hellenist and the Latinist, who wrap themselves in a cloud of classical sublimity, and pronounce mysteries about the bliss they enjoy, of which the "vulgar" are utterly unqualified to form an idea. Dr Caldwell can follow the pedant and pedagogue into the penetralia of this nebulosity, and, dissipating it from around him, expose him and his pompous imposition to the derision they deserve. This is important. It de-

prives dead-language advocates of the *argumentum ad classem*, that urged against the levellers of rank, that the greatest enemies to titles and distinctions are those who possess them not. We hold that there is no one altogether qualified to meet the dead-language advocates at every point, to follow them into their most antiquated recesses, and up to their most sublime positions, who is not himself a classical scholar; always with the incalculable advantage to his trustworthiness, that he does not rest *all* his reputation in life upon his mere scholarship—the much to be deplored case of his most zealous, dignified, and, of course, intolerant opponents. Many an honest tradesman can estimate the uselessness of the dead languages to his son, who has lost his time and money in *failing* to learn them. Many of the great class of “the vulgar,” can judge of the utter uselessness in life of a mere classical scholar, and can see that really great men, who are also classical scholars, owe their greatness to other acquirements in addition to the dead languages; but a scholar like our author, can go deeply into the literature as well as the philosophy and economics of the question, and certainly we have never seen this more scrutinizingly, more learnedly, more unsparingly done, than in the treatise before us. There is nothing on this side of the Atlantic like it. He has, by demonstration, step by step, stript the advocates of the paramount importance of the dead languages to the absolute nudity of the following foundations alone of their cause—*custom, fashion, pride, and interest*. The following are the heads (in italics) of the arguments which he successfully combats:*

1. *Classical learning is considered by its thorough-going advocates to be ESSENTIAL to a liberal education.* Dr Caldwell shews that a liberal education can mean only the adequate cultivation of *all* the faculties; and Greek and Latin, being but languages, cannot make provision for this purpose.

2. *Because certain objections to including mathematics in a liberal education are capable of a satisfactory answer, THEREFORE it follows by analogy, that the objections to the exclusive claims of the dead languages are thereby removed.* Analogies, Dr Caldwell says, are dangerous; and *this* utterly fails.

3. *The dead languages are an essential part of a liberal education, because this has hitherto been held to be true in every country in Europe.* This, Dr Caldwell says, is to beg the question. A *belief* prevails in these countries that they do, but it is an absurd one, arising out of custom, fashion, and establishments. He proposes to change the word essential into *fashionable*.

* They are taken from the Reports on the Course of Instruction in Yale College, by a Committee of the Corporation and the Academical Faculty.

4. *The literature of the most advanced nations of Europe, and of the United States, is founded on that of Ancient Greece and Rome, or dependent upon that for its most important illustrations.* We give Dr Caldwell's argument on this topic, as a specimen of his manner of reasoning:—

“The constitution of the English language, and every thing fundamental that belongs to it, rest much more on the Saxon than on either the Greek or Latin, or on both united; and the Russian, and the German in all its dialects, are original tongues,—no more dependent on the Greek or Latin than the latter are on them. That many English writers have modelled their style and manner after those of the writers of Greece and Rome, is true; but that the most pure and classical writers of the English language have done so, is not true. English literature has a character of its own, very distinct from that of either Greek or Roman literature. It cannot conform to both of them, they being widely different from each other. The truth is, that, when pure, it conforms to neither. This is proved by the prose works of Dryden, Bolingbroke, Swift, Addison, Taylor, Goldsmith, Scott, and other great masters of English style. These compositions, and many others that might be referred to, derive nothing in manner or illustration from ancient literature, and but little in words. They are written chiefly in Saxon-English. We allude especially to the structure and spirit of the composition. Some of the most tasteless works in our language are modelled after the ancients. How can it be otherwise? An effort is made in them to assimilate incongruous things. Attempts, moreover, to imitate bespeak inferiority, and contribute to perpetuate it. On that ground, ancient authors have injured many modern ones. No writer will ever be great unless he aspire to originality, both in manner and matter. He must act according to the constitution of his own mind, not in imitation of the mind of another; for his intellectual stores, he must draw on nature; and, to acquire mental vigour and dexterity, he must exercise regularly, and on suitable subjects, the powers he possesses. But the adorers of the ancients will be the last to do this. Like the adherents to royalty, they will continue to recognise, in the Greeks and Romans, a *divine right* to instruct the moderns.

“English literature will never attain the perfection of which it is susceptible, until it shall be cultivated, more than ever it has been, on the ground of the true constitution of the English tongue. Never until then will it be free from trammels; and freedom is essential to perfection in every thing. We deem it fortunate that this sentiment has begun to prevail; and that it has so begun cannot be doubted. English and American writers *generally* are less servile copyists of the ancients than they

were fifty years ago; and, *as nations*, their writings have improved. Both in Great Britain and the United States, more especially in the latter, there are *twenty* good writers now, where there was *one* at the commencement of our revolutionary war; yet in neither country has the devotion to the ancient classics increased in the same ratio."

5. *Because the Greeks and Romans are models in statuary and architecture, they ought, therefore, to be the guides of our literature.* Another unsound analogy.

6. *Classical literature lays the foundation of a correct taste.* To this Dr Caldwell answers, that correct taste is a natural gift, which may be improved, but never can be created or "founded" by any course of education. The correctest taste is often found in female writers, and they are not classical scholars.

7. *The study of the Greek and Latin authors forms the most effectual discipline of the mental faculties, and improves the taste and fancy.* It does not, says Dr Caldwell, employ *every* faculty of the mind, intellectual and moral. We give his answer at length:—

"We cannot concur in the opinion that the study of the dead languages 'forms the most effectual discipline of the mental faculties'—especially of 'judgment and the reasoning powers.' On the contrary, we are convinced that it does not. We do not perceive how it disciplines either 'reason' or 'judgment' at all. Nor do we think it does so. Some of the most thorough-bred Hellenists and Latinists we have seen were eminently defective in reason and judgment. Nor is this an uncommon occurrence. Observation has taught us to believe the reverse. We think it rare to find, in our colleges and elsewhere, that those young men, who judge most correctly, reason most conclusively, compose most elegantly, and debate most eloquently and powerfully, are most perfectly versed in the ancient languages. And if the study of Greek and Latin invigorates the 'memory,' it is a memory for *words*, not for *ideas* of qualities, objects, events, or *their relations*. And the cultivation of a modern tongue will have the same effect. The reason of all this is obvious. 'The cultivation of Greek and Latin is but the study of words in one language, and their synonymes or representatives in another. It does not, therefore, and cannot strengthen the memory for any thing but language; and, we repeat, that that form of memory can be strengthened as well by the study of English and French, as of Greek and Latin.

"The chief source of error on this topic is the belief that memory is a *faculty* of the mind, and that we have but *one* kind of memory; whereas it is but a *function* or *mode* of opera-

tion of a faculty. We have, therefore, as many sorts of memory as the mind possesses of intellectual faculties, each faculty having its own; and as no one primitive faculty can form the ideas which are the product of another, neither can it remember them, because it never had them. Memory is the power of recalling ideas which were once possessed. The cultivation of the memory belonging to one faculty of the mind, then, does not strengthen the memory belonging to another, any more than the cultivation of hearing strengthens vision, or of smelling, touch. To illustrate this by examples. * * *

"We might thus enumerate all the intellectual faculties, and shew that they are acted on and exercised only each by objects or agents proper to itself; that each forms and remembers only its own class of ideas; and that, therefore, the cultivation of one of them does not improve *directly* the functions of another. That it may receive strength and become dexterous in action, each one must be exercised in its own line. The faculties of Individuality and Eventuality must be exercised on single objects and events, Comparison chiefly on the relations of analogy, and Causality on those of cause and effect.

"Respecting the *animal* and *moral* faculties, the same is true. Each one of them is exercised and strengthened only by its own objects, and in its own way. The proper education of each, therefore, is specific, and contributes nothing directly to the education of another.

"It is in the education of the moral faculties that the teachers of youth are most deficient. They seem to think that they are improving their pupils in morality, when they are merely restraining them from vice. Nothing, however, can be more erroneous. The teaching of morality is as much a *positive* process, as teaching to read and write. The moral faculties, we mean, must be actively exercised, each on its proper object. The faculty of Benevolence is strengthened only by the work of benevolence, and the contemplation of kind actions. The faculty of Conscientiousness is strengthened by contemplating and doing what is just and right. The faculty of Veneration delights in doing homage to superior beings, and derives from the practice its chief improvement. Ideality is exercised and strengthened by beauty and sublimity, and Firmness gains power from scenes of difficulty.

"Of the animal faculties the same may be affirmed. Combativeness is strengthened by a familiarity with danger, Acquisitiveness by the pursuit of wealth, and Destructiveness by cruelty and the shedding of blood.

"We shall only add, that, so perfectly do the faculties of the mind harmonize with the works of creation, that each finds,

abundantly, suitable objects for its own exercise, enjoyment, and increase in strength. Nor will instructors ever be competent to their duty, until they realize this truth, and act in conformity to it."

Again: "As relates to the cultivation of the *moral faculties*, no one will contend that that is highly promoted by the study of Greek and Latin. It may, at least, be questioned, whether it is promoted at all. Many have believed the reverse to be true. That some striking examples of morality, especially as respects certain virtues, are exhibited in the ancient classics, is not denied. But the scale of immorality greatly preponderates. The entire scheme of the Greek and Roman mythology, is a revolting picture of licentiousness and crime. Jupiter, at once the chief of gods and adulterers. Apollo, the gallant, gay Lothario of heaven and earth. Mars, a blood-thirsty, swaggering bully. Neptune, a blustering boaster, and a flagrant ravisher. Vulcan, a low-bred, deformed, ill-tongued ruffian. Bacchus, a sot. Juno, a fierce, vindictive termagant. Minerva, a prude; and most of the other female divinities *no better than they ought to be*.

"Of the demi-gods and heroes, not one exhibits an example to be followed. Even the 'pious Æneas, the goddess-born,' was an ungrateful seducer, a lawless usurper, and an inexorable murderer.

"Nor did the characters of the philosophers of either Greece or Rome approach immaculacy. Pericles waging a bloody war on account of his mistress, Socrates at the feet of Aspasia, and Cato accommodating a friend with his wife, are but sorry samples of morality for modern youth to imitate.

"Nor is this all. In Horace, Ovid, Juvenal, Catullus, Anacreon, and other classical writers, are many odes, epistles, satires, and letters, too obscene for young men to read. In fine, if we would strengthen the moral faculties, and preserve their purity, we must exercise them in some other and better way than by the study of Greek and Latin."

As to the improvement of taste and fancy, it was previously argued that the classics were the *foundation* of the taste,—the improvement is an humbler province. But Dr Caldwell shews that modern literature is sufficient for this, and names British poets as equal at least to any of the ancients. Dr Caldwell continues his argument by shewing, that it is not necessary to go to Greek and Latin to study the philosophy of language, the reason and fundamental principles of all languages being the same. The aid he takes from Phrenology here gives an increased interest to his reasoning, which is original, logical, and powerful. All the philosophy of language is to be found

in English; he denounces the imperfect provision made for the study of English, which he imputes to the absurd preference given to the dead languages. For the latter, he says, are provided palaces; for the former, log cabins.

“ True, this state of things is passing away, and may it pass speedily! The change within the present century is great, and all for the better. In most, we believe in all the respectable seats of learning in our country, the cultivation of the English language is improving. Still, however, it is every where much below what it ought to be, and what we trust it will be by the middle of the century. We shall only add, that those whose native tongue is English, should make it a point of national pride and ambition, not only to understand it thoroughly, but to give it a high standing, in the estimation of the world, to which it is entitled. And this can be done only by making it a subject of serious study. That being effected, English will be no longer a *step-child* in our academies, colleges, and universities. The ancient languages will be no longer permitted to overshadow it, and triumph in its degradation.”

We have long advocated attention to English, and have had the satisfaction to see what are called English departments added to several classical establishments. This has been done subsidiarily in Edinburgh in the High School and Royal Academy, but more decidedly and importantly by Mr Cuninghame in the Edinburgh Hill Street Academy, and in the High School of Glasgow under Mr Dorsey. In the two latter, the resort of pupils to this branch is very great. It has itself revived the prosperity of the Glasgow seminary, which had previously shared a low ebb with other mere grammar schools.

8. *If the languages and literature of Italy, France, and Spain, beyond what is more superficial, are an object with the student, they should be acquired THROUGH THE LATIN; nor is there reason to doubt, so far as experience affords the means of judging, that it is the most expedient mode of acquiring a familiarity with the languages in question.* On no point is Dr Caldwell more triumphant than in his exposure of the absurdity of this most absurd of all conceivable propositions. He adduces the case of females.

9. “ *We are the people (say the Committee), the genius of whose government and institution, more especially and imperiously than any other, demands that the field of classical learning be industriously and thoroughly explored and cultivated, and its rich productions gathered. The models of ancient literature, which are put into the hands of the young student, can hardly fail to imbue his mind with the principles of liberty; to inspire the liveliest patriotism, and to excite to noble and generous ac-*

tion, and are therefore peculiarly adapted to the American youth. To appreciate justly the character of the ancients, the thorough study and accurate knowledge of their classics, in the language of the originals, is indispensable; as the simplicity, energy, and striking peculiarities of these pristine exemplars of freedom, which are forcibly and beautifully displayed in their models of classical literature, are scarcely more discoverable in ordinary, or even the most faithful translations, than are the warmth, animation, and intellectual illumination of the living, active, and intelligent being, in the sculptured imitation of the statuary." This paragraph Dr Caldwell properly denominates rant more than reason; declamatory, frothy, and erroneous. He proceeds to shew, as we have done elsewhere,* that there was no genuine freedom in the ancient world, and the principles and spirit of rational liberty are to be derived from modern writers, both British and American. He adduces Germany, disgraced by despotisms even down to the present age, yet excelling all other countries in classical lore. But even if all that is said about the spirit of freedom were true, it is undeniable that *this* may be obtained from translations of the classics. *This*, at least, does not depend on fine untranslatable turns of expression. Dr Caldwell even holds that all the spirit, fire, and force, of an ancient Greek or Roman composition may, and has been, transfused into an English translation; and cites Murphy's Tacitus, Pope's Homer, and Letter of Sappho to Phaon. Brevity of expression is the only advantage which is not attained; but this Dr Caldwell considers, and justly, as of minor importance. The following we cannot deny ourselves the satisfaction of extracting:—

"We are aware of the prejudice arrayed against us on this subject. But we are unmoved by it, and fearlessly state what we believe, in defiance of it. We therefore repeat, that an English scholar, who is an able and accomplished writer, can, provided he thoroughly comprehends it and feels it, translate a Greek or Latin composition, matter and spirit, into his mother-tongue. And unless the scholar who reads it in the original thus comprehends and feels it, he does not enjoy it, and is not benefited by it, as the Committee allege he is. What advantage does he derive from visions of beauty floating in his mind, which he is unable to express in his own tongue? They neither enrich, strengthen, nor refine him, as a writer or a speaker. They are mere mental lumber, and therefore unavailable, if not prejudicial. But the truth is, that the whole matter is but a fancy. Whatever a scholar clearly understands, no matter

* Vol. viii. p. 452.

from what source it is derived—the study of Greek and Latin, or the study of Nature—he *can* communicate *clearly* and *forcibly*, provided he is a forcible thinker, and has made himself master of his native language. In contending, then, that an individual can be delighted and benefited by the beauties of works written in the dead languages, while he is unable to transfer those beauties, and use them in a living language, the Committee appear to us to have contradicted themselves. In such a case, there is no *delight* or *improvement* without *actual possession* of what delights or improves; and, if *possessed*, the beauty can be translated, to delight and improve others.

“It would be well for those who believe in the incommunicable beauties and delights inherent in Greek and Latin composition, to endeavour to ascertain how much of those qualities are in the *sentiment*, and how much in the *sound*. The sonorousness and euphony of Greek and Latin are much superior to those of English. Of this, every classical scholar must be sensible. Hence, much of the delight derived from reading them, is the delight of harmonious musical sound—especially when the sound is an ‘echo to the sense.’ We say ‘harmonious sound;’ for such is generally the exquisite order and arrangement of the words, that, if they be altered, much of the beauty of the passage is marred, and an equal amount of the pleasure of reading it dissipated. This may be illustrated and proved by the following quotations:—

“‘*Exoritur clamorque virum clangorque tubarum,*’—an exquisitely beautiful line, the sound fairly echoing the sense. Let the words be transposed into their natural order, ‘*Clamorque virum clangorque tubarum exoritur,*’ and more than half the beauty is gone.

“‘*Stat sonipes, ac fræna ferox spumantia mandit.*’

‘*Ferox sonipes stat, ac mandit spumantia fræna.*’

‘*Intonsuere poli et orebris micat ignibus æther.*’

‘*Poli intonsuere et æther micat orebris ignibus.*’

“Every one must perceive that the beauty of the two latter lines is equally destroyed, by changing the artificial into the natural arrangement of their words. Of Greek and Latin composition generally the same is true. The only object of transposition in it, is euphony and harmony, or the improvement of sound. In English composition, much is already done, and more *may* be done, in the same way.

“There is also a reason why we fancy more beauty in Greek and Latin composition than we really *perceive*. We do not, in general, *perfectly understand* it. A sort of shadowy dimness hangs over its meaning. And every one knows that a little obscurity heightens materially the feeling of beauty and

sublimity. This it does, by giving more play and wider scope to the imagination. The beauty of a moonlight scene is much improved by the fleecy rack which flits across the heavens.

"Once more. Classical scholars are proud of their attainments. They, therefore, feel a selfish enjoyment in persuading themselves that they have access to rich fountains of pleasure, in their knowledge of Greek and Latin, from which the uninitiated are excluded. And it is a law of human nature, that men can so far realize their wishes as to believe ultimately what they are anxious to believe. Such are some of the chief reasons why it is contended that the beauty and spirit of Greek and Latin composition are necessarily lost in a translation."

10. *To appreciate justly the character of the ancients, the thorough study of the classics in the language of the originals is indispensable.* This is pure nonsense. Dr Caldwell truly answers that we must, for the same reason, study Russian or Laplandish, to gain a knowledge of these nations. Shakspeare was intimately acquainted with the Greeks and Romans, though unversed in their language, and he had access to few and indifferant translations. Dr Caldwell says—

"The ancient languages, then, being no longer a source of either science or history, and the study of them having no more influence in training and strengthening the higher faculties of the mind than the study of modern languages; were the question put, 'In what respect are scholars benefited by a knowledge of them?' the answer must be, 'In *polite literature* alone.' How far they are benefited even *there*, shall be our next inquiry. This brings us to consider a question proposed in *substance* in an early part of this article.

"Can an Englishman or an American, versed in modern languages only—say English, French, and Italian—but thoroughly disciplined in science, become as able and accomplished a writer and speaker, as if he had a knowledge of Greek and Latin?"

"This is an important problem, in the present state of the world—more especially, perhaps, in our own country; and we repeat, that it can be solved conclusively only by an experiment which has never yet been made. The effect of a true *modern education* has never been tried—certainly never on a broad scale. No one, we mean, as far as we are informed, has been thoroughly imbued with modern languages and modern science, and extensively practised in writing and speaking, without having some acquaintance also with Greek and Latin. Hence a vast majority of great authors and orators have been necessarily more or less of classical scholars. It would be strange were it otherwise. The tide of opinion, united to the influence of *fashion*, has compelled every one educated for professional,

public, or literary life, to pay some attention to ancient literature. But has this study aided them essentially in the attainment of distinction? or has it been only an accompaniment of it, tending, perhaps, to decorate the mind, but neither to enrich nor strengthen it? To reply, that it has been an indispensable element of the greatness and lustre acquired, would be hazardous, we think, for various reasons."

We must refer to the treatise itself for the masterly manner in which the author deals with this important topic, and the powerful evidence with which he supports his argument. The latter, he says, is all *positive* evidence; he adduces a list of first-rate English authors who were either not classical scholars at all, or very humble ones. He says, in a note—"In one respect we have an infinite advantage over our opponents. Ours is the *positive*, theirs the *negative* side of the question. A single proof from us, therefore, is paramount to all the negations they can offer. But we have furnished sundry proofs, in mentioning the names of several individuals who have become accomplished writers and speakers, without a knowledge of Greek and Latin. We consider our opinion, therefore, fully established. The maxim, that the whole is greater than a part, is not more so."

Dr Caldwell proposes to run two youths of equal capacity against each other, one educated *completely* in other respects, without the dead languages, and the other with them. Dr Caldwell is not an extinguisher of classical literature; he says—"Are we asked, Whether we would abandon the study of the dead languages altogether? We answer, No; but we would reduce greatly the number of those who should engage in the study of them; and those who might thus engage should become thoroughly versed in them. We would have no smatterers—no linguists *in name*—but accomplished Greek and Latin scholars. They should be scholars *by profession*. And one such could do more good, in applying the ancient languages to the only useful purposes they are calculated to subserve, than the entire phalanx of those shallow Hellenists and Latinists who swarm so thickly in Europe and America." He shews the futility of the argument that the dead languages are necessary to the study of law and medicine; all of these languages which concerns those studies may be gained along with them, and this will be an easy task after law and medicine are divested of their absurd Latin dress. He likewise maintains, that terms of art and science may be learned, *as such*, without studying their Greek originals;—this is successfully accomplished by female scholars. Lastly, he shews that the etymological question admits of the same answer.

Dr Caldwell describes a perfect course of professional education ; and says—" To complete this course of instruction and training will occupy the time of the most highly-gifted youth from his sixth until his eighteenth or twentieth year. Nor do we hesitate to believe, that the adoption of such a plan of education would usher in an era of professional, literary, and scientific splendour, such as the world has never witnessed. The study of the sciences would furnish the matter of knowledge, and give strength and activity to the *whole mind*, while the due cultivation of modern language would improve the power and all other qualities of expression, both in writing and speaking." The author thus concludes: " As relates to English, the same would be true. If studied and improved, in a distinct capacity, it would be brought, more certainly than in any other way, to the highest perfection it can ever attain. Hence we would rejoice to see an Institute established, with a sufficient number of able professors, and all the necessary means of instruction, where nothing would be taught but modern science and modern language. But they should be taught in perfection. We believe that such an institution would be amply patronized, and would produce in time the happiest effects. The experiment would at least solve the problem, How far a knowledge of Greek and Latin is indispensable as an element of a liberal education? and the solution would be useful, by settling a controversy which, without the experiment, threatens to be interminable.

" Finally, were the Greek and Roman nations now in existence, possessed of no more knowledge than they had during their most enlightened periods, they would be much more benefited by studying modern languages for the sake of science, than the moderns are by studying theirs for the attainment of words. Such, we feel confident, would be their own opinion ; and their conduct would conform to it. Thus would the current of education be reversed, the less enlightened people being no longer considered a model for the more enlightened to imitate."

In a Postscript, Dr Caldwell demolishes a bombast article, in support of the helpless cause of the dead languages, in the *American Quarterly Register*. This, he truly says, is not an analysis but a panegyric. Of the same character are almost all the defences of the classics we have yet seen or heard. He gives some specimens of the " fustian " style of the writer ; itself a very humble tribute to the power of classical literature in himself, either to have strengthened the judgment or improved the taste. There is an excellent page or two in this part of the treatise upon the uselessness of etymology, in which Dr Cald-

well adduces a number of words derived from the Saxon,—as *hand, handle, finger, fung, speech, snake*, &c. ;—from the Latin, as *post-office, post-chaise, opposite, repose*, &c. all from *positum*, placed ;—and from the Greek, as *philosophy, philanthropy, anarchy, heptarchy* : and he asks what mere English scholar is one whit the worse when he uses these words that he does not know their origin in another tongue ; and, as is yet more to the purpose, what Saxon, or Latin, or Greek scholar, when he uses them, ever thinks of their derivation, or is one whit the better for his knowledge of it ? He then adds, that, if we must have etymology, let us have it as a direct study, from dictionaries for the purpose, as the other sex gains it ; and “ *The Student’s Manual*,” an Etymological Dictionary by Dr Harrison Black, is in its fifth edition, a proof of the demand for it.

To the senseless cant about “ *degeneracy*,” “ *extinction of erudition*,” “ *return to barbarism*,” and the like, Dr Caldwell’s answer is triumphant. These calamities, according to yet current pedagoguism, are all to overtake us. Why ? because ninety-nine in every hundred are to exchange a miserable smattering of Greek and Latin for none at all ! The *real* classical scholars—seeing it is not meant to extinguish the classics entirely—will be quite as numerous as at present ; nay, in consequence of a less irksome mode of study, will probably increase. Alas ! for civilization, if it lay on the shoulders of the smatterers, or even on those of the thorough classical scholars ! “ It is moreover, by the study of nature alone, that the condition of men can be gradually ameliorated ; for all improvements, whether in philosophy or in the arts, which administer to the comforts of life, flow directly from that source. Were the study of nature abandoned, all advancement in knowledge would be at an end ; and, as nothing earthly is stationary, the movement of the general condition of society would be retrograde, until barbarism would again usurp the seat of civilization, and the ‘ *Dark Ages* ’ return. Yet to this issue does our author’s doctrine tend. And for what would he exchange the study of nature ?—The cultivation of Greek literature. He would barter an acquaintance with what nature is doing *now*, for a *dreamy* knowledge—for it can be *only dreamy*, and never *vivid*—of what the Greeks were doing and thinking four or five-and-twenty centuries ago ! In simple terms, he would give Greek literature a preference to the science and literature of creation ; for creation has its language and literature as well as man ; and none again can read them, but those who cultivate them. Shall we be told that the ‘ *Dark Ages* ’ could not return, provided Greek literature were studied, inasmuch as it once dissipated them ? We reply, that the phrase ‘ *Dark Ages* ’

is comparative, and relates to a period of *greater light*. And; compared to the present period, the 'Dark Ages' continue several centuries after the time of the Revival of Letters. Until the beginning of the seventeenth century, the world had but little more of light than a morning dawn. Yet Greek literature had been as thoroughly studied before that period as it has been since. Besides, it was not Greek literature *alone* that shed a faint radiance on Christendom, during the fourteenth, fifteenth, and sixteenth centuries. The study of that was accompanied, to a moderate extent, by the study of nature. The light elicited, therefore, was the product of both. Finally, compared to the present state of the world, ancient Greece herself, notwithstanding her language and literature, was overshadowed by 'Dark Ages.' Away, then, with the empty notion, that the cultivation of that literature is the only way to prevent 'modern degeneracy!' An exchange of the present condition of Christendom for that of the brightest period of ancient Greece, would be to barter improvement for 'degeneracy.' "

The author concludes his admirable treatise—which ought to settle the question, and, above all, cover with shame those who are now—aye, in Edinburgh—wielding the paltry, truly vulgar, argument of *fashion*, by talking of the "*vulgar*" attempts to discredit "gentlemanlike" classical literature—with the following eloquent, because just and logical passage:—

"Finally, we have already admitted that there was a time when a knowledge of the ancient classics was essential to a liberal education. But is that time to be interminable? Is the *minority* of the English language never to have an end? Is the period never to arrive when that language will be so mature and independent of its parentage as to be prepared to set up for itself? The warmest advocate for Greek and Latin will pause before answering this question negatively. We doubt whether any one will so answer it. Within a century from this date, English will be the native tongue of upwards of three hundred millions of the human race. Must that immense population, whose number the mind is unable to grasp, still depend, and, notwithstanding its subsequent boundless increase, still continue to depend, on Greece and Rome for their intellectual nourishment?—for their literature and their mental discipline? The fancy is preposterous. As well may it be contended, that they will derive from those spots of earth their corporeal food. No; they will have a language of their own, answering to all their wants, and competent to the manifestation of all their powers. In fact, with the slight restrictions heretofore mentioned, the English and their descendants have such a language now; and the time will arrive, when to oppose this opinion will be considered as much the result of antiquated prejudice, as to advocate it now is considered the work of a spirit

of innovation. Nor do we hesitate to believe, that, ages hence, when the Greek and Latin languages shall have been neglected and forgotten, English literature, in common with general and professional science, will be in a state of much higher perfection than it has yet attained. Greek and Latin are destined to become the Sanscrit of future times, known only to the antiquarian and the virtuoso; while English, in an improved condition, will be as lasting as our race."

ARTICLE VIII.

MORAL MANAGEMENT OF THE INSANE.

THE following striking account of a scene in the Bedlam of Paris is extracted by a contemporary from a paper read at the Academy of Sciences, by the son of the celebrated Pinel, describing an act of his father's, which deserves everlasting honour, from the wisdom, courage, and humanity which it displays:—

Towards the end of 1792, Pinel, after having many times urged the Government to allow him to unchain the maniacs of the Bicêtre, but in vain, went himself to the authorities, and, with much earnestness and warmth, advocated the removal of this monstrous abuse. Couthon, a member of the Commune, gave way to M. Pinel's arguments, and agreed to meet him at the Bicêtre. Couthon then interrogated those who were chained; but the abuse he received, and the confused sounds of cries, vociferations, and clanking of chains, in the filthy and damp cells, made him recoil from Pinel's proposition. "You may do what you will with them (said he), but I fear you will become their victim." Pinel immediately commenced his undertaking. There were some whom he considered might, without danger to the others, be unchained; and he began by releasing twelve, with the sole precaution of having previously prepared the same number of strong waistcoats, with long sleeves, which could be tied behind the back, if necessary. The first man on whom the experiment was to be tried was an English captain, whose history no one knew, as he had been in chains forty years. He was thought to be one of the most furious amongst them. His keepers approached him with caution, as he had, in a fit of fury, killed one of them on the spot with a blow from his manacles. He was chained more rigorously than any of the others. Pinel entered his cell unattended, and calmly said to him, "Captain, I will order your chains to be taken off, and give you liberty to walk in the court, if you will promise me to behave well, and injure no one." "Yes, I promise you," said

the maniac; "but you are laughing at me, you are all too much afraid of me." "I have six men," said Pinel, "ready to enforce my commands, if necessary. Believe me, then, on my word, I will give you your liberty if you put on this waistcoat."

He submitted to this willingly without a word. His chains were removed, and the keepers retired, leaving the door of his cell open. He raised himself many times from his seat, but fell again on it, for he had been in a sitting posture so long that he had lost the use of his legs. In a quarter of an hour he succeeded in maintaining his balance, and, with tottering steps, came to the door of his dark cell. His first look was at the sky, and he cried out enthusiastically, "How beautiful!" During the rest of the day he was constantly in motion, walking up and down the stair-cases, and uttering short exclamations of delight. In the evening he returned of his own accord to his cell, where a better bed than he had been accustomed to had been prepared for him, and he slept tranquilly. During the two succeeding years which he spent in the Bicêtre, he had no return of his previous paroxysms, but even rendered himself useful by exercising a kind of authority over the insane patients, whom he ruled in his own fashion.

The next unfortunate being whom Pinel visited was a soldier of the French Guards, whose only fault was drunkenness; when once he lost self-command by drink he became quarrelsome and violent, and the more dangerous from his great bodily strength. From his frequent excesses, he had been discharged from his corps, and had speedily dissipated his scanty means. Disgrace and misery so depressed him that he became insane: in his paroxysms he believed himself a general, and fought those who would not acknowledge his rank. After a furious struggle of this sort, he was brought to the Bicêtre, in a state of the greatest excitement. He had now been chained for ten years, and with greater care than the others, from his having frequently broken his chains with his hands. Once, when he broke loose, he defied all his keepers to enter his cell until they had passed under his legs; and he compelled eight men to obey this strange command. Pinel, in his previous visits to him, regarded him as a man of original good nature, but under excitement, incessantly kept up by cruel treatment; and he had promised speedily to ameliorate his condition, which promise alone had made him more calm. Now, he announced to him that he should be chained no longer, "and to prove that he had confidence in him, and believed him to be a man capable of better things, he called upon him to assist in releasing those others who had not reason like himself; and promised, if he conducted himself well, to take him into his own service." The change was sudden and com-

plete. No sooner was he liberated than he became obliging and attentive, following with his eyes every motion of Pinel, and executing his orders with as much address as promptness: he spoke kindly and reasonably to the other patients; and during the rest of his life was entirely devoted to his deliverer. And "I can never hear without emotion (says Pinel's son) the name of this man, who, some years after this occurrence, shared with me the games of my childhood, and to whom I shall feel always attached."

In the next cell were three Russian soldiers, who had been in chains for many years, but on what account no one knew. They were in general calm and inoffensive, becoming animated only when conversing together, which was unintelligible to others. They were allowed the only consolation of which they appeared sensible—to live together. The preparations taken to release them alarmed them, as they imagined the keepers had come to inflict new severities; and they opposed them violently when removing their irons. When released they were not willing to leave their prison, and remained in their habitual posture. Either grief or loss of intellect had rendered them indifferent to liberty.

Near them was an old priest, who was possessed with the idea that he was Christ; his appearance indicated the vanity of belief: he was grave and solemn; his smile soft, and at the same time severe, repelling all familiarity; his hair was long, and hung on each side of his face, which was pale, intelligent, and resigned. On his being once taunted with a question, that "if he were Christ he could break his chain," he solemnly replied, "*Frustra tentaris Dominum tuum.*" His whole life was a romance of religious excitement. He undertook on foot pilgrimages to Cologne and Rome; and made a voyage to America for the purpose of converting the Indians: his dominant idea became changed into actual mania, and, on his return to France, he announced himself as the Saviour. He was taken by the police before the Archbishop of Paris, by whose orders he was confined in the Bicêtre as either impious or insane. His hands and feet were loaded with heavy chains, and, during twelve years, he bore with exemplary patience this martyrdom and constant sarcasms. Pinel did not attempt to reason with him, but ordered him to be unchained in silence, directing at the same time that every one should imitate the old man's reserve, and never speak to him. This order was rigorously observed, and produced on a patient a more decided effect than either chains or dungeon; he became humiliated by the unusual isolation, and, after hesitating for a long time, gradually introduced himself to the society of the other patients. From this time his notions became more just and sensible, and

in less than a year he acknowledged the absurdity of his previous prepossession, and was dismissed from the Bicêtre.

In the course of a few days, Pinel released fifty-three maniacs from their chains: among them were men of all conditions and countries; workmen, merchants, soldiers, lawyers, &c. The result was beyond his hopes. Tranquillity and harmony succeeded to tumult and disorder; and the whole discipline was marked with a regularity and kindness which had the most favourable effect on the insane themselves; rendering even the most furious the more tractable.

ARTICLE IX.

A SKETCH OF THE ACCORDANCE BETWEEN THE INDUCTIVE PHILOSOPHY OF BACON AND THE APTITUDE OF THE HUMAN INTELLECT, AS DEMONSTRATED BY PHRENOLOGY. By DANIEL NOBLE, Member of the Royal College of Surgeons in London, and President of the Manchester Phrenological Society *.

IN reviewing the history and progress of philosophy and the sciences, nothing is more calculated to excite our interest and admiration than the rapidity with which their advancement has been characterized for the last 200 years. In tracing their condition from the remotest periods down to the seventeenth century, we shall observe the greatest poverty and destitution. During these ages, though the *name* of philosophy and the *name* of science were by the wise and by the multitude held in almost godlike adoration, still,—except in a few solitary instances, men calling themselves philosophers omitted, at least successfully, to cultivate the reality. When Copernicus and Galileo appeared, they were regarded with feelings of hate and awe, so overwhelmed were mankind with what appeared to be their boldness and impiety in daring to investigate and explain what had previously been regarded as inscrutable mysteries.

But let us direct our attention to these things as they exist in our own day, and how changed is the prospect! Mankind would almost appear to have obtained the mastery over the natural laws themselves; so much so, at least, as to be enabled to wield them to their own advantage and wellbeing in almost every relation of life. When we compare the state of society at the present day with that which existed at more remote periods, how sensible are we not rendered of the splendid achievement of modern science! If we survey the existing state of every civilized community, we shall trace in its most intimate relations the vast

* Read before the Members of the Manchester Phrenological Society at the opening of the session, October 6. 1835.

and beneficial results which have accrued from that rapid advance in true philosophy which the last two centuries have witnessed.

Now, for the extraordinary alteration in the condition and in the practical results of the sciences, there must be some adequate cause. And, as we may not inaptly designate "science" to be *the result of the right application of the human intellect to the investigation of nature*, we must necessarily look for such cause either in the greater intellectual powers of mankind in modern times, or in the improved method in which these powers are applied; for nature has not, in her laws at least, undergone any observable change within the periods of history.

How far can the position that the mental faculties of the human race have received an accession of native capability within the last two hundred years be maintained? To an extent, I humbly contend, that would be utterly inadequate to the explanation of that rapid flow of the "onward tide of human improvement," so manifest in more modern times. For if we refer to the works of the leading men of antiquity, as philosophers, poets, orators, mathematicians, we shall certainly find nothing to countenance the idea of their being furnished with a low grade of intellectual capability. It was the method in which the powers of the mind were exercised and applied that prevented the advance of true philosophy, and the improvement of the sciences; and it was by the propounding and by the application of a new method, that mankind were enabled to obtain satisfactory results from their scientific labours.

Before the true nature of that method can be properly appreciated, it becomes necessary to say a few words relative to the philosophy which formerly prevailed. In remote ages, and down to a very recent period, philosophers, in exercising their intellectual powers in the investigation of scientific truths, devoted themselves almost exclusively to the cultivation of their *reasoning* or *reflective* faculties, and this, in most cases, to the complete neglect of the powers of observation; and hence, when they applied themselves to the solution of any problem in physics or in metaphysics, they would run lightly over in their minds the few facts with which accident rather than design had made them acquainted; then, by the conception of some false analogy they would invent a *theory*, and ultimately fashion their few facts to a fancied accordance with this theory, rather than modify the latter so as to agree with the facts. In this most imperfect and fallacious method was the human intellect exercised for centuries; general axioms being directly raised from a few ill-digested particulars: and, these being rested upon as unshaken truths, intermediate axioms were attempted to be discovered from them, while facts in opposition, when absolutely forced upon the atten-

tion, were distorted and misinterpreted, so as to accord with preconceived notions, or they were rejected altogether:—it was declared that the illusive subtle character of the senses rendered them unsafe and incomplete helps to the human intellect; that the only sure guide to man was that exalted faculty which so nobly distinguished him from the rest of the visible creation, the *reasoning* faculty; that the senses were only to be regarded as the servants of the intellect; and that, as a *theory* was more particularly the offspring of *reason*, and the perception of a fact *only* that of *sense*, the daughters of sense must, with all submission, yield in humble prostration to the majesty of the daughter of reason. It was even held that an observation of nature should be doubted rather than a theory of the human reason. Thus when there arose a philosopher of great intellectual strength, who, having taken a superficial survey of almost the whole range of science, invented numberless theories fallacious as plausible, and fashioned a comparatively small number of facts into a fancied accordance with these theories, the whole world was in admiration, and stood captivated by the charm; and thus, for at least two thousand years, the real advancement of science was entirely suspended, and philosopher and the multitude bowed alike with submission to the all but infallible authority of the mighty Aristotle! When men like Galileo or Copernicus advanced their new doctrines, they were tested by an appeal not to nature, but to the works of the Grecian philosopher! In such a state of things the natural powers of mankind could not have their legitimate direction; and we find that the philosophy of the middle and more remote ages was almost altogether of the professorial and disputatious kind, a method utterly unfit for the investigation of truth.

As illustrations and obvious instances of the fallaciousness of the old system of philosophy, and as proofs of the false and unsatisfactory conclusions to which it led, I will adduce the ancient speculations relative to the elementary and constituent principles of things, as taught by three of the most celebrated philosophers of ancient Greece,—Pythagoras, Plato, and Aristotle. They all taught, as an uncontroverted maxim, that “from nothing nothing is made,” and consequently that matter is eternal; but they varied as to the precise mode in which the existing system of the universe came to be fashioned into order. Pythagoras taught that matter was originally destitute of all sensible qualities, including form itself; and that, being passive and plastic, it was operated upon “in some era of the ages” by an intelligent agent, co-eternal with itself, on the mathematical principle of numerical proportion. He compared the existence of matter, in its primary amorphous state, to arithmetical numbers before they are rendered visible by figures:—“*Unity*,” says he,

"and *one* are to be distinguished from each other; and *unity* is an abstract conception resembling primary or incorporeal matter in its general aggregate; *one* appertains to things capable of being numbered, and may be compared to matter rendered visible under a particular form." He then associates his theory of numbers with the science of music, regarding the latter as a branch of numerical science; and next conceives, that the planets, having been formed, move through an elastic ether, and must produce a sound musically exquisite, as their adjustment is perfect and complete; an idea beautifully employed in a figurative sense by Dryden:—

"From harmony, from heavenly harmony,
This universal frame began.
When underneath, a heap
Of jarring atoms lay,
And could not heave her head,
The tuneful voice was heard from high,
Arise, ye more than dead!
Then hot and cold, and moist and dry,
In order to their stations leap,
And Music's power obey.
From harmony, from heavenly harmony,
This universal frame began;
From harmony to harmony,
Through all the compass of the notes it ran,
The diapason closing full in man."

What Pythagoras called numbers, Plato designated *ideas*, a term that has descended to us, though in a different sense; and these he held were operated upon by the wisdom, or as he denominated it, the *logos* of the great FIRST CAUSE; the *logos* being described as a distinct principle, though an eternal emanation from the Deity. Thus emanating, he conceived it to be the reservoir of *ideas* or intellectual forms, themselves subsisting as real beings, and by the union of the *logos* with *ideas* he accounted for the production of palpable forms as objects of contemplation.

Aristotle, in the acuteness of his perception, immediately saw that the hypothesis either of Plato or of Pythagoras was utterly inadequate to solve the question relative to the production of the visible world, and he himself proposed a scheme which, in the magnitude of its results, and in its influence upon mankind, far outrivalled that of his predecessors. He held that the universe is the result of four distinct principles all co-eternal, intelligence, matter, form, and space; and that the three latter have been eternally acted upon, and thrown into a definite series of motions by the principle of "intelligence," tantamount to our notions of the Deity, and whom he conceives to be himself for ever at rest in the purest and loftiest circle of the heavens, communicating motion, necessarily and essentially, to the circle

immediately below him, and so on through a series of ten spheres; the residence of the supreme intelligence being denominated EMPYREUM; the next, the PRIMUM MOBILE; then the CRYSTALLINE HEAVENS; beneath, the STARRY HEAVENS; the next seven deriving their names from the revolutions of the planets of our solar system; and the Earth forming the centre of the whole, itself being subject only to a rocking motion; whilst each ascending heaven or circle performed a revolution round our planet, the whole being completed in the space of 25,920 years; and this period was hence denominated the ANNUS MAGNUS OR GREAT YEAR, and sometimes the PLATONIC YEAR, as a similar notion was inculcated by Plato.

It is indeed true, and yet to some must appear almost incredible, that for ages such doctrines were taught with all the positiveness and plausibility with which a science of facts is taught in our own day; and that, with a few exceptions, one or other of these systems of the world was in most points universally received with all the acquiescence of implicit belief. To have doubted or questioned any important point of the philosophy of the day, would have been accounted daring presumption and audacious innovation, though indeed every one of the three systems of the universe which I have just adduced is so manifestly false and destitute of foundation that the simple question, which a child might naturally have propounded, "*How do they know it?*" would, if persevered in and traced to its consequences, have most effectually worsted and confounded both the philosophy and the philosophers. It is quite obvious, then, that "the tree being known by its fruits," the speculative system of philosophy is most satisfactorily demonstrated to be unsafe, from the complete absence of any certainty in its results whenever and wherever it has been tried; and it is most certainly proved to be fallacious by the succession of false notions to which, in various ages of the world, it has led.

The method of investigating nature by the previous formation of a general theory, Lord Bacon calls the *anticipation* of nature, and this he designates as rash and hasty, and as utterly inconsistent with natural ordinances; and the intellect being duly exercised upon objects, he emphatically styles the *interpretation* of nature. And yet, when all these things are duly considered, it will not excite our surprise that mankind should for centuries have chosen to anticipate rather than to interpret nature, especially when we take into account the corresponding views which the metaphysicians took of the human mind itself. This, the grand instrument for obtaining, and reservoir for receiving, the possessions of all science, was almost universally regarded as though it existed only *within*, and not *united to*, the body; its dependence in this life upon organization was but rarely hinted

at ; and to a great extent it was considered that the mind is first formed with certain fundamental notions of general principles, independent of all experience, or of knowledge gained by the senses : and hence, with such a preliminary view of the constitution of the thinking principle, it need excite no surprise that philosophers should have delighted to reflect upon, speculate from, and attempt to trace out, their general notions ; and that, with their magnificent views and ideas of the etherial transcendency of spirit, and the innate grossness of matter, they should have disdained, humbly, patiently, and unostentatiously to observe nature, and collect facts ; applying the *bridle* rather than the *spur* to the bepraised and much vaunted faculty of reason.

Before dismissing from consideration the ancient system of philosophy, it may not be uninteresting to attempt a phrenological analysis of the mode in which the ancients arrived at their conclusions. And for this purpose I will take Aristotle's theory of the world as an instance. We may regard, then, the Stagirate, in forming his system, exercising first his Individuality and Eventuality, not in the way of particular *observation*, but of general *memory*, to ascertain the various kinds of existences, and modes of existence ; he then, by the faculty of Comparison, classifies the things remembered and reduces them to four elementary principles,—intelligence, matter, form, and space. In the progress of the speculation Causality is brought into exercise, but always in subservience to the promptings of Comparison for lack of materials furnished by Individuality and Eventuality ; and hence, when he speaks of the supreme intelligence communicating motive energy to the *primum mobile*, and this again to the sphere immediately below, and so on, who does not observe the attempt to establish an analogy between the work of the human hands, as displayed in mechanics, by the application of a few of nature's observed laws, and the origin and preservation of the great system of the universe ? And who does not see at once the absolute inadequacy of such a mental process to elucidate or advance the truths of any branch of science ?

It was reserved for the illustrious Bacon to dissipate and disperse this false system of philosophy. He it was, who, by an acuteness of perception and magnitude of judgment which have never been surpassed, and but rarely equalled, had not only the penetration to detect the causes of error and retardation in the labours of his predecessors, but also the sagacity at once, and unaided, to perceive the grounds on which a true interpretation of nature could alone be established. And it may with certainty be affirmed, that, although the discovery of printing must be allowed to have originally given the renewed momentum to the mental energies and labours of mankind, still the present condition of the sciences, as conducing to human civilization and

improvement, is in a great measure owing to the propounding of Lord Bacon's new method of investigating the laws of nature, as systematically laid down and explained in his "*Novum Organum Scientiarum*." It is by the application of these doctrines, which have a true foundation in the nature of things, that every practical improvement in the arts and sciences has been achieved; and if one branch of science more than another may be regarded as the result of the application of the Baconian axioms, Phrenology is most indubitably that branch, formed as it is on the sure basis of the inductive philosophy. The laws of the human mind in relation to external nature, the wonderful intellectual powers of Bacon had at once the grasp to comprehend; and when we observe (the mind itself having become a matter of science) how beautifully the method of induction, as laid down by Bacon, accords with the observed laws and aptitude of the human intellect as demonstrated by Phrenology, our wonder and admiration for the man who, unaided by Phrenology, could do so much, need scarcely recognise any limits—so fine an example of the grandeur of the human intellect in its most exalted condition did this truly great man present, and so perseveringly and effectually to the improvement of the human race were his mighty energies applied.

The aphorism with which the great father of modern philosophy opens his "*Novum Organum*," runs thus:—"Man, who is the servant and interpreter of nature, can act and understand no farther than he has, either in operation or in contemplation, observed of the method and order of nature." This maxim, in point of fact, embraces the whole system of induction; but Bacon follows it out, enters into details of the causes of the slow and imperfect progress of the sciences up to his own day, and then propounds his own method for their surer advancement, and illustrates his positions by actual instances—having himself set the example of what, in those days, seemed to be the humble occupation of observing, collecting, and recording facts, and affirming nothing as a general proposition, which every fact, in an individual series, did not confirm. Nor let this method be regarded as self-evident, and needing no Bacon to point it out as the only sure means of originating and advancing science; for let it be remembered that, for ages, though it must constantly have been seen that every actual discovery had its basis upon these principles, still of its existence as a *method*, as a system demonstrating every other to be imperfect and fallacious, mankind seemed not to have an idea; and hence, to Bacon is due the full measure of that homage which almost every school of philosophy in the world is now anxious to render to him. For, in his own emphatic language, "men first conceive it incredible that any such discovery should be made;

but after it is once made, they again think it incredible that it was not found out before."

I will now attempt, in a very few words, to give a general notion of the inductive philosophy, as propounded in the "*Novum Organum Scientiarum*." It is there laid down that, before an axiom is established, all the facts relative to any given subject, which can be collected, must be brought together, and every affirmation which they imply be embodied in a general proposition; that such parts of the proposition as individual facts in the series are found to negative, must be removed, and what is left as constantly affirmed must be received as an axiom formed by experience, itself the director in the contriving of new experiments; and as, in the progress of experiment, some circumstance may transpire invalidating certain points of the axiom, so must it be modified as to recognise the exception. As an example, suppose the subject of inquiry to be the effect of cold, or deprivation of heat, upon the dimensions of liquid substances: let us suppose the collection of all the previously observed facts, and what is the general affirmation left, after a moderately inquisitorial examination of the series? This proposition may be supposed to stand as the axiom to lead to new observations,—*As heat is withdrawn from liquids, their dimensions decrease.* This, then, is taken as the guide to further experiments, and in the progress of these it is found that, whilst water obeys the supposed general law until the reduction of temperature is brought to 40° Fahrenheit, on its arrival at that point, a slight and gradual increase in dimensions takes place, until the freezing point is attained, and this fact creates a necessity for revising the axiom; itself, in its renewed condition, continuing the ever faithful index, by the aid of which persevering observation and experiment must be conducted.

In the above few sentences, I have slightly sketched the rule laid down for the investigation and improvement of the sciences; and a moment's reflection will at once lead the mind to recognise in it the only method in which human knowledge has ever been, or ever can be, truly obtained or advanced. And its striking accordance with the natural laws of the human intellect will be obvious to every one who has directed the most cursory attention to the subject of Phrenology.

In what particular way, however, it may be asked, is the accordance between Phrenology and the inductive philosophy rendered manifest? As Phrenology, when well understood, specifies the relations subsisting between the various faculties of the mind and the various objects and modes of existence in external nature; and as these relations are found exactly to accord with those which Bacon recognises in his philosophy; so

may the accordance be at once made out. By way of illustration:—it is known to all phrenologists, that our simple and primary notions of *things* result from impressions being made, through the senses, upon the faculty of Individuality, and upon those communicating notions of the qualities of objects; then the faculties of Eventuality, Locality, and Time, receiving their materials, on which to operate, from the faculties of which I have just spoken, furnish the mind with ideas of *relation*, whether in reference to circumstance, situation, or duration; then we have the faculty of Comparison observing the analogies existing between notions received through the various media; and lastly, the laws of the mutations of objects and their relations being duly observed, and the whole being fairly classified, and their analogies recognised, we have Causality noting the true connection, in the way of efficiency, between one event and another,—and, the invariability of succedence and precedence being observed, pronouncing the *precedent* efficient as a cause to the *succedent*, which is the effect. And only by the recognition of the true relation, as to cause and effect, amongst a series of circumstances, can a true axiom be established; but when once fairly fixed, it forms an infallible guide, as a basis of experiment, to illimitable improvement. Thus, I will attempt to analyze the process which would occur in the mind of a Baconian student, in the supposed investigation relative to the effect of cold on fluids. I assume that nothing, as a general principle at least, is known upon the subject, when the student commences with his inquiry. Does he start with some preconceived theory, or assumed general principle, built upon a false analogy? Does he, from remembering the effect of a gradual withdrawal of heat from many of the ordinary materials in general use, start with the general axiom, that fluids gradually and sensibly harden, in the proportion in which heat is withdrawn? Does he, from this axiom, erected on a false foundation, attempt to deduce ten thousand intermediate propositions, without once deigning to prosecute so vulgar an affair as the conduct of an experiment? No. The Aristotelian would do all these things, and his labours would be fruitless. But the sober and persevering student of the present day would, first of all, apply his faculties of Individuality and Eventuality, and the other perceptive powers, to the collection of all the facts relating to the subject, which were within his reach; the faculty of Comparison, in the first instance, might suggest certain methods of experiment as a means of observing the absolute influence of cold upon fluids; and, after having gone through a sufficiently lengthened series of experiments, Causality would intuitively perceive and declare the general affirmation afforded by the whole series. But the cautious spirit of

the Baconian would not be satisfied with this : he would vary the experiment ; he would *torture* nature to elicit the truth ; at every step where the fact rendered it necessary, he would apply the pruning-knife to the general affirmation ; and, when the invariableness of the sequence was fairly made out, he would form his axiom, and declare, that "as heat is withdrawn from fluids, their dimensions decrease." Having established an axiom, he starts again with renewed ardour, and resumes the race of experiment and observation. In a short time, he discovers the anomaly afforded by water on being reduced to 40° Fahrenheit ; and here he remodels his axiom and resumes his philosophical course. This way of arriving at a general conclusion is the "method of induction."

There is, however, another most important consideration to be estimated in the investigation of science ; and that is, that the mind of the inquirer becomes thoroughly freed from all wayward conceits and preconceived notions ; and that "he becomes as a little child as he enters the portals of philosophy." For this purpose, Bacon points out the nature and the source of those mischievous prejudices which possess the human mind, and so take root therein, that truth can hardly enter : these prepossessions he designates *idols* ; they are well known, and can be traced to abuses of the faculties as distinguished by Phrenology.

Now, on comparing the old and the new systems of philosophy, will there be a difference of opinion as to which is that one which leads to truth, in its immediate results, and to the advancement of human civilization in its consequences ? The outlines of the two systems need only be presented to the unbiassed decisions of common sense, and the "method of induction" will at once be declared to be that whose true foundation is nature, and natural ordinances. Speculation and hypothesis may amuse, delight, and surprise mankind ; and in former days fame and honour would have been their handmaids : but the time is now gone by, and every one who would reap the reward must be industrious at seed-time. And here I will again quote, from the "*Novum Organum*," an aphorism regarding the evidences of true philosophy :—"Signs are also to be taken from the progress and increase of philosophies and the sciences ; for things planted in nature will grow and enlarge ; but things founded in opinion will differ and not thrive. And, therefore, if the ancient doctrines had not been like plants plucked up and severed from their roots, but still adhered to the womb of nature, and were fed by her, that could not have happened which we see has happened for these two thousand years ; the sciences still remaining where they were, and almost in the same condition, without any considerable improvement ; nay, they rather flourished most in their original authors, and afterwards de-

clined. On the contrary, the mechanic arts which are founded in nature and the light of experience, and remaining pregnant, as it were, with spirit, so long as they continue to please, are ever upon their increase and growth; being first rude, then fashioned, and, lastly, polished and perpetually improved."

I do not know a better illustration of the value of the two systems of philosophy, than that afforded by a comparison of the labours of the metaphysicians and the phrenologists—the proceeding of the former having been to rise from a few particulars to the most general axioms, and these being rested upon as truths, to attempt the formation of intermediate axioms; and the latter, raising axioms from an extended series of observations, and, by a gradual ascent, arriving at the most general conclusions. The metaphysicians, like their philosophical predecessors of the ancient world, erred in making their few facts bend to their assumed general notions; and hence, whole systems rested, almost exclusively, upon the *opinions* of their founders—systems which "will differ and not thrive." For example, Descartes and Malebranche assumed the doctrine of innate ideas, almost as a postulate; and, their metaphysical system hinging altogether upon this assumption, it necessarily followed that the next ingenious man who could expose the *fallacy* of the assumed general principle, would entirely supersede the authority of former systems: for here, there was no association or accumulation of labour, no gradual advancement, no being "first rude, then fashioned, and, lastly, polished, and perpetually improved." All was perfect and complete until utterly demolished! Bacon, in confuting the false philosophy, has the following passage, which will admirably apply to the metaphysician:—"When a person goes upon an inquiry, in the first place he searches out and peruses what has been said upon it by others; in the next place, adds his own thoughts thereto; and lastly, with great struggle of the mind, solicits and invokes, as it were, his own spirit, to deliver him of oracles: which is a method entirely destitute of foundation, and rolls wholly upon opinions." How different is the proceeding and the progress of the phrenologist! Does *he* start by *assuming* any thing? Does *he* let the suggestion of his own fancy dictate to him those matters on which he relies as truth? Does *he*, with great struggle of mind, invoke his spirit to deliver him of oracles? He does none of these things; but, for what he actually does, let us refer to the history of the labours of Dr Gall. What, then, was the first proceeding of this true philosopher, and that which ultimately led to the discovery of Phrenology? In the true Baconian spirit, he first made numerous observations upon the peculiar talents and dispositions of individuals, and, at the same time, noted a correspondence in the

shape of the head ; and, on a peculiar form of head being observed to be notably and repeatedly coincident with some peculiarity of talent or disposition, he inferred the probability of the existence of a definite relation between the two conditions ; and, the facts unequivocally warranting the probability of the inference, it was made the guide-post to further observation ; and when facts abundantly multiplied, and all in corroboration, the general axiom was induced, recognising a necessary relation between form of head and peculiarity of mind. By this proceeding, Phrenology is rendered a science of accumulation,—the labours of one being transferable to the use of another ; and thus, all studying from the same source—the Book of Nature,—axioms may be established, raised, and daily rendered of a more general nature, according as observations, the materials of induction, increase, multiply, and accumulate. Hence, unlike metaphysical science, Phrenology *may* be “ first rude, then fashioned, and lastly polished, and perpetually improved.”

ARTICLE X.

THE CLERGY VINDICATED FROM THE CHARGE OF HOSTILITY TO THE DIFFUSION OF SCIENCE ; being an Answer to the Pamphlet of Mr H. G. WRIGHT. By a PHRENOLOGIST. Edinburgh, John Anderson, Jun. 1836.

THIS pamphlet, under the imposing title of “ The Clergy Vindicated,” is intended as a reply to Article X. in the last number of the Phrenological Journal, being Remarks on the religious objections to Science and Phrenology, afterwards published separately.

The object of that article was to point out the utter groundlessness of these objections. The prospectus of the Scottish Christian Herald was referred to, as exemplifying the uneasy feeling that existed on the subject ; and Drs Chalmers and Buckland, and the Quarterly Review, were summoned to bear witness to the truth of the general proposition, which they did in very distinct terms. The great improvement which secular knowledge had wrought on the whole tone and spirit of the human mind was pointed out, and this effect traced to its cause by the aid of Phrenology ; next, some of the principal objections, *by inference*, against Phrenology, and which stand in the way of an examination of the facts on which it is based, were stated and replied to ; and lastly, the unfounded notion that Phrenology usurps the place of Religion was noticed.

All this appears to have given great offence to the writer of the pamphlet of which the title is prefixed. Whether it was the

truth of the remarks, vouched by such unquestionable evidence; that nettled him (unconsciously, of course), it is not for me to say; but were one to judge from the petty personalities and the quality of—may I call it—*argument* that pervade the pamphlet, certainly something approaching to conviction would force itself on the mind that this was the case.

He announces to the world that he has doubts whether my antagonist has had fair play in the encounter, and says, "We must summon him to the field again." Satisfied that without his aid the Church would be in danger, he stretches out his protecting arm to the clergy, and bids them cheer up, for that *he* is their friend, and will vindicate them from all the libels that truth ever uttered. Accordingly, throwing around him the cloak of "A Phrenologist," away he marches with his *protégés* to the field to enact the part of the eighth champion of Europe. His opponent stood in the open field, feeling that

"Thrice is he arm'd that hath his quarrel just;"

but not so thought our champion, who, remembering Falstaff's catechism, that though honour "pricked him on," honour might "prick him off" also,—exclaimed, with his prudent prototype, "I'll none of it." Accordingly, skulking under shelter, out come

"The slings and arrows of outrageous John,"

with the charge of "unfair" pinned to one—of "unhallowed" to another—of "conscience-stricken" to a third—and so on; and when we look round to find the author of all this, we see the cloak of "A Phrenologist" held up on a pole to answer the charge. Now, independently of the poor compliment which this is paying to the clergy, from the implied mistrust in the goodness of his cause, it does appear not a little despicable in a person to throw out such charges, and at the same time sneak away from the merited contempt which the exposure of their injustice and absurdity would have showered upon him.*

At the very commencement of the pamphlet there is a ludicrous mistake—of *the printer of course*—by which the writer is made to assume a false character. The printer makes him say that he assumes "the office of *umpire*." (P. 1.) This awkward blunder is so palpable, even in the very first paragraph, that we immediately turn to the "errata" to find the printer's *amende honorable* to the libelled feelings of the writer, in the shape of "For *umpire* read *champion* or *partisan*;" but, will it be credit-

* The author of "The Clergy Vindicated" reproaches me with being unknown in the republic of letters. This charge, of course, could come with effect only from a person of literary note; but here it comes, curiously enough, from a writer who has not even a name.

ed, not a word can be found, and the champion's shame and vexation, and his virtuous indignation against Messrs Neill and Company, may be imagined. Truly this is vexatious, I admit. But, as he cannot be more desirous than I am of his being seen in his true character, I will do him all justice by acquitting him, as I now do, and as I am sure his readers will do, of the slightest appearance of the cool, lukewarm feeling of an umpire. Let him comfort himself by thinking, that his leaning to one side is obvious from first to last ; and, with this assurance, he may bid his conscience lie still. In fact, the very title shews he is no umpire—"The Clergy Vindicated." Had he meant to call himself an "umpire," the pamphlet would have shown him to be guilty of such gross want of candour and fair-dealing, as to have merited the severest reprobation ; while, by his self-election to the office of *vindicator* merely, he is only chargeable with consummate assurance and hardihood, in presuming to rebuke Dr Chalmers and other eminent members of the church. Take an example or two. Thus writes Dr Chalmers (using, as a friend, the language of warning and reproof) : "Those narrow and intolerant professors (he is speaking of certain of the clergy) who take an alarm at the very sound and semblance of philosophy, and feel as if there were an utter irreconcilable antipathy between its lessons on the one hand, and the soundness and piety of the Bible on the other."* Now let us hear his *Vindicator* on this subject. He says (p. 1), "Of all the devices resorted to for the purpose of undermining the influence of the clergy, we know of none more characteristic of those who boast themselves the enlightened advocates of liberality, or more calculated to effect their unhallowed object, than that of *arraigning the former before the tribunal of public opinion as enemies to the diffusion of knowledge.*" Take Dr Chalmers again : "It were well, I conceive, for our cause, that the latter (the intolerant professors) could become a little more indulgent on this subject ; that they gave up a portion of those ancient and hereditary prepossessions which go so far to cramp and enthrall them."† Hear the Doctor's *Vindicator* again (p. 1) : "Were the clergy indeed to deem it worth their while to refute every *idle calumny* which is circulated against them, their task would be an endless one." Now, as these sentiments of Dr Chalmers were before the *Vindicator* when he penned his remarks, it would thus appear, that, while he pretends to vindicate the church, he is in reality making a target of one of her most gifted sons. A pretty vindication this truly ! Well may the Church, seeing herself at the mercy of so weak a brother, exclaim, "Save me from my friends !"

In the "Remarks," I quoted a passage from the prospectus

* Preface to Dr Chalmers's *Astronomical Discourses*.

† *Loc. cit.*

of the Christian Herald, in which the writer spoke of "*all sorts* of literary machinery,"—inter alia, "school-books, libraries of knowledge for use or entertainment,"—as being set in motion for purposes all but "hostile to the Gospel."

The vindicator attempts to defend this and similar passages, and tells us that the objection is taken not to teachers of *truth*, but of *error*; and he gives us a dissertation upon the various disguises which the "Prince of Darkness," as the head teacher, adopts when he has work in hand; the inference from all which is, that these "school-books" are some of "Satan's ministers." Now, only imagine a poor innocent Latin or Greek grammar "set in motion" to overthrow the Gospel! Imagine the Prince of Darkness couching, like a deer-stalker, amongst the declensions or conjugations, till the unhappy boy comes within reach! I suppose we shall have *penna pennæ*, and *amo amavi amatum amare*, now freely translated thus: "The Gospel is an old wife's fable." To be sure there may be danger in such an example of a rule of syntax as this—" *Descensus averni facilis est.*" There, if any where, the Devil ought to be met with going "to and fro," or up and down his "*descensus*" or inclined plane. Imagine also such works as "Insect Architecture" being full of evil purposes! It is well that no proof has been attempted on the subject; vague assertion is the thing to stick by in such cases. Well might Dr Fletcher exclaim, "It argues rather a sickly kind of piety in the advocates of revealed truth to be thus tremblingly alive to every imaginary encroachment;" and "it seems to me to betray even some degree of infidelity to be so morbidly tenacious of the faith."*

But let us even suppose that the charge is true; that Satan, by a refinement in policy hitherto unknown, has instigated these individuals to write a series of admirable works on moral and intellectual science, "for the accomplishment of his deep-laid machinations"—what will be the result? To ascertain this, we must take a look at Satan's objects. What are they? According to St Paul, they are "murder, adultery, strife, hatred, envyings," &c. &c. Now, to produce these works, the Devil must stimulate the propensities, and bring them up to a *white heat*, whilst he also takes care to keep the mind in a state of ignorance as to the uses and abuses of all its faculties. Such being his "purposes," how does he set about attaining them? Why, he endeavours to strengthen the intellectual and moral powers, and to check the abuses of the propensities. Instead of resorting to his old-fashioned policy of rousing the passions and misleading the judgment, he now, under the vindi-

* Discourse on the Importance of the Study of Physiology, p. 15.

cator's theory, checks the passions and enlightens the judgment. Those not in the secret would imagine that he was outwitting himself by thus opening the eyes of his pupils,—that in every step of his instructions he was removing them farther and farther from his reach. But this, the vindicator tells us, is quite a mistaken idea; on the contrary, the Devil is making philosophy "subservient to his designs." As the vindicator has the advantage of us in this view, we must wait patiently until the march of intellect overtake us.

It is true that I suggested the possibility of Phrenology being the chief science aimed at—not certainly from any hint in the prospectus, which was directed broadly and distinctly against "*all sorts* of literary machinery," specifying seven or eight different "*sorts*," in addition to "the resources of the lecturer's desk, the platform, and the press" generally; but simply because, the charge against "*all sorts*" being utterly ridiculous, Phrenology was at the present day bearing the brunt of the attacks that formerly were directed against Astronomy and Geology.

The vindicator alleges that only phrenologists have considered the charge of seeking to undermine the Gospel, as levelled against them. Let us, however, see what Dr Fyfe, a lecturer on *Chemistry*, says to his audience: "Their instructors, while labouring in their vocations among them, had been assailed as tending to disseminate principles bordering on infidelity,"* &c. And we have shewn what opinion was entertained by Dr Fletcher, a lecturer on *Physiology*.

It has been mentioned, that in the "Remarks" some of the principal objections by inference against Phrenology were stated and answered. In noticing the first of these, namely, "That Phrenology cannot be true, because its doctrines are inconsistent with revelation," the vindicator asks if it is "fair or honest" to represent the objectors stating this as their "*sole*" objection. Now, what I stated was, that such an inferential objection prevented some from investigating the facts on which Phrenology is based; that, as the world was examining the subject on its merits, such an objection was useless if the objectors wished to retain their influence; and that they ought therefore at once to try the science by its facts. I see nothing in this that is not quite "fair or honest." Had the objection been a link in a chain of argument, I could have understood the meaning of the remark, but as it was merely an insulated preliminary point that stood in the way, the vindicator's commentaries on it appear to be somewhat hypercritical: besides, he knows, or ought to know, that the objections on the ground of fact have been repeatedly answered. But in future, when I notice any one objection, I suppose there

* See Dr Fyfe's concluding Lecture, reported in the Edinburgh Chronicle of May 7. 1836.

must be added—"Here take in such and such replies, remarks, answers, observations, &c. &c. on all the objections against Phrenology."

The next objection which I noticed was, that "the cultivators of science" were said to be merely "men of this generation." The vindicator is pleased to say that this is a creation of my "distempered fancy," and adds, "we are bold to deny that he ever heard the cultivators of science, *as such*, stigmatised as 'men of this generation.'"

I agree with the vindicator that he is "bold to deny" this. What says Dr Chalmers in the passage above quoted? Why, he accuses the "intolerant professors" of believing that the truths of science were hostile to the truths of the Bible,—implying, of course, that they must believe the cultivators of science, *as such*, to be "men of this generation." But the vindicator's boldness extends so far as to contradict himself. He says (p. 9), "If science be unaccompanied by religion [i. e. science strictly *as such*], and gains an entrance into minds which have not previously been visited by religion [still *as such* alone], we behold nothing but melancholy examples of the apostolical aphorism, that knowledge puffeth up, and thereby engenders a spirit of hostility to the Gospel." So that, in plain English, the vindicator does himself stigmatise the cultivators of science (in the strictest sense) *as such*, as being "men of this generation." This he even does a second time, again contradicting himself, when he speaks (p. 9) of "scientific men of eminence" (i. e. cultivators of science *as such*), as "*deists*," i. e. in his view "men of this generation."

The third objection which I combated was, that "Whether Phrenology was true or not, it was inconsistent with revelation, and therefore dangerous." The vindicator asks when I ever heard any rational being maintain this. That the beings were "rational" I certainly never said or imagined; but that the vindicator considers them "rational," may be inferred from the fact of his advocating their views. To recur to Dr Chalmers as last quoted—he accuses his brethren of believing philosophy (he is speaking of the *truths* of philosophy) to be inconsistent with revelation. Dr Buckland* does also; and, as usual, the vindicator answers himself. He insinuates that the "scientific" men of eminence (therefore "rational") have become *deists* through their science. It follows that they must consider that science "inconsistent with revelation" *as interpreted by the vindicator*. Again, the writer in the Presbyterian Magazine insists upon "philosophy being tested by revelation." Now, if Phrenology could be disproved by facts, he would not have been driven to such an

* "Remarks," p. 12, note.

unphilosophical position. If, on the other hand, its established results were consistent with his views of revelation, he would obviously have said so. The inference from his language therefore is, that he considers Phrenology true, and yet inconsistent with his views of revelation. I might go on quoting authorities, and proving these positions; but it would be idle to go further.

Of course I do not notice any of the weak or unphrenological opinions or statements in the pamphlet, which do not concern me. I leave the vindicator to go on contradicting himself;—as, for example, where he lays it down that “to the mind unenlightened by science the Bible in *most cases* is not a dead letter, and then adds, that during the dark ages of the Church there were only “*a few*” who were truly religious;—that is, the Bible in *most cases* was a dead letter.

H. G. WRIGHT.

ARTICLE XI.

CASE OF JOHN LINN, A PARRICIDE.

SEVERAL years ago a cast of the head of John Linn of Belfast, who had been found guilty of parricide, was presented to the Phrenological Society by Dr M'Donnell of that town; and as the head is a remarkable one, we were induced to make inquiry into the history and character of the criminal. Through the kindness of an intelligent phrenologist of Belfast, Mr John Grat-tan, by whom the case was carefully investigated, we are enabled to lay the following particulars before our readers.

The circumstances of the crime for which Linn was tried are thus narrated in *The Belfast Commercial Chronicle* of 1st September 1839:—

“About one o'clock the inhabitants near the house of William Linn, turner and wheelwright in Smithfield, were alarmed by screams and shouts from the house. John Linn, commonly known by the name of Lippy Linn, a tall powerful man, was observed with a hatchet destroying the furniture of the house, breaking the windows, crockery, &c.; and two women and two boys rushed out of the house, exclaiming that John had murdered his father. The boys ran to the Court-house, where the magistrates were sitting, and a party of police was immediately deaired to proceed to the spot. At this time they found the door bolted; the unfortunate wretch had retreated to the back houses, and was, in his phrensy, destroying all the windows he could come at with the hatchet. On going up a few steps into a small workshop, they found the old man lying on his face, weltering in his blood, and quite dead. The murderer, after

smashing everything he could meet, proceeded to the top of a wall, but finally surrendered himself, and was taken before the magistrates, where he freely acknowledged having taken his father's life, and was forthwith committed to the county jail. On the inquest, Arthur Murphy, who worked as a journeyman with the deceased, deposed, that about one o'clock he and an apprentice were at work in the shop with the deceased, when John Linn came in; and when he had stood for a little while, he asked for his hammer and tools; his father said he had none belonging to him. John then took down the lark's cage and said it was his, for he had bought seed for it; the deceased said he would pay him for the seed. John then threw the cage with the bird in it upon the floor, and jumping upon it smashed it to pieces; he then took up the hatchet and struck his father, who was not saying or doing any thing at the time.* The deceased was a man universally esteemed in his station, and manifested great affection towards his wretched son, who was of very irregular habits, and subject to sudden gusts of ungovernable passion. We have heard that since his committal the wretched man has evinced great contrition, and solemnly declares, that when he went to his father's, he had not the most remote intention of hurting him, far less of taking his life. When in custody, and about to be removed, he asked permission to go and take leave of his father, for he had killed him.

"*March 18. 1833. Carrickfergus Court-house.*—Arthur Murphy, after giving evidence much to the same effect as the foregoing, was cross-examined.—'Was in Linn's workshop when prisoner came in; he appeared in a very wild state, foaming at the mouth, and quite deranged-looking; saw him the Saturday before, and heard him shouting that he was mad; saw him once in Liverpool in the same state,—he was singing, and all at once turned round and said he would go and kill some man; locked the door then and kept him in.' Rachel Peel examined.—'The prisoner is her brother; has known him for some time back to have exhibited symptoms of derangement of mind; he had at one time a fracture of the head, about three years ago last November; he said at one time that his father had purchased poison, and that she (witness) was to poison his sons; the Saturday before the death, she observed something particular in his conduct; he came into the workshop and said, 'Lord Jesus! I am going mad;' bound a handkerchief round his head, and then jumped up and said he would destroy them all; witness ran out and fainted.' The prisoner was acquitted on the ground of insanity."

* It may be necessary to remark, that, after striking his father with the hatchet, he then stabbed him with a chisel, and that it was the latter wound which caused his death; but the details are unimportant, and too long to be copied.

Mr Grattan gives the result of his own inquiries in the following sentences:—

“ In addition to these facts, extracted from a public journal, I learned from Mr Wales, the surgeon who attended the inquest, and who knew Linn well, that he was a celebrated pugilist, cock-fighter, &c. He also informed me, that after the murder he asked Linn what could have induced him to commit such an act, and that Linn replied, ‘ his father had not dealt fairly by him;’ implying that he had given away property which should have been his, whereas the fact was he had been particularly liberal to him.

“ When informed, however, that his father was actually dead, he was seized with remorse, ‘ and his grief,’ says Mr Wales, ‘ was not merely boisterous; he absolutely roared like a bull, so that I had considerable difficulty in controlling him.’

“ He understood him in general to be much attached to his wife and children, except when under the influence of one of those ‘ gusts of passion,’ or when excited by drink, to which he was addicted, having at one time kept a public house or spirit-shop. He was considered, as far as Mr Wales knew, to be an excellent mechanic; but, in consequence of his violent and quarrelsome disposition, the workmen in his father’s shop frequently refused to work along with him.

“ Dr M’Donnell, who is the medical attendant of the lunatic asylum where Linn is at present confined, most kindly gave me such information as he possessed concerning him, and also a ticket of admission for Mr Wales and myself to see him. From Dr M’Donnell’s account, it would appear that Linn did not manifest any extraordinary violence of temper early in life—not until he was sent to school, where, in consequence of a deformity in his lip, which had been operated on for double hare-lip, he acquired the nickname of ‘ Lippy Linn,’ which sobriquet has attached to him through life. Irritated by this circumstance, he used to be continually engaged in boxing matches with his schoolfellows, until he became quite expert as a pugilist, and in consequence, when more advanced in life, became an amateur, attending prize-fights, &c. and spending his money in taking lessons in the ‘ science.’ Possessed of great bodily strength and prowess, he then became the champion of the orangemen, of which society he was a member, being put forward upon all occasions to fight their battles and bully their opponents. And to these circumstances Dr M’Donnell is inclined to attribute the formation of his character. Of course, no phrenologist can admit the soundness of the deduction, though he must acknowledge the terrific influence which such a course of training must have had upon naturally strong animal propensities. I consider it but honest, however, to give my information exactly as I re-

ceived it, and as nearly as possible in the very words. On the subject of religion, he and the Doctor had had a conversation, in which he stated himself to be an orthodox presbyterian, and intimately acquainted with the tenets of that sect; indeed, he considered himself quite an expert theologian, and offered to discuss the merits of the *five articles* with any one.

"When Mr Wales and I went to the asylum, we found him engraving a seal which he had formed, with considerable neatness and ingenuity, out of common limestone, by means of a pen-knife.

"He at first appeared to dislike being recognised, but when Mr Wales made himself known to him, he exhibited no repugnance to enter into conversation with us. He said he always loved his father, and would have done any thing for him; but that his sister had turned him, the father, against him, and was the cause of their quarrelling, and getting him put out of the house, where he thought he had as much right to be as any of them.

"He expressed great anxiety to obtain his liberty, that he might provide by his own industry for his children, instead of having them, as they are at present, in the poor-house. He was most anxious to convince Mr Wales that he was not insane, and had been perfectly free from any thing even like temporary insanity since his admission into the asylum, in consequence, as he himself stated, of having nothing to excite him, and never being allowed to get spirituous drink; indeed, he expressed himself so convinced of its uncontrollable influence upon him, that he said he would never again taste it. From the size of his Constructiveness, I was induced to ask him whether he was a good workman; upon which he mentioned, as a proof of his dexterity, that he had frequently cleared *twelve shillings a-day* at his business. He expressed great affection for his wife and children. As we were surrounded by several of the inmates of the establishment, and as the defect in his lip rendered it difficult for us to understand what he said, we were unable to converse as freely as might have been wished: our information derived from himself, therefore, is but trifling; as far as it goes, however, it corroborates the testimony of the others. He did not like to be questioned about the 'unfortunate occurrence,' as he uniformly termed it, and we could not with any delicacy press him upon the subject. At present his conduct is correct, and he is described as being obliging, amiable, and particularly industrious, never choosing to be idle. He was extraordinarily solicitous to contradict an erroneous report which he stated had been circulated concerning him, and which charged him with having *torn and destroyed the Bible* before that 'unfortunate occurrence.' He repeated this several times, evidently regarding it as a more heinous offence than the crime of which he was actually guilty.

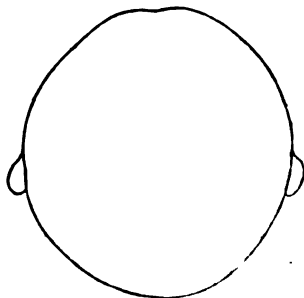
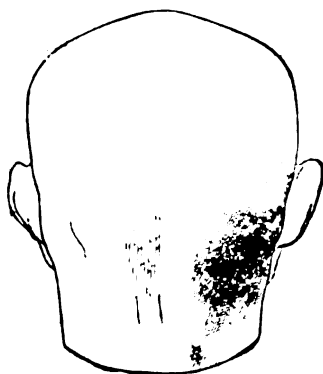
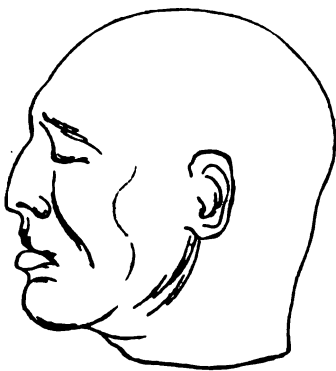
"A person of the name of Gibson, a very intelligent man,

who occasionally works for me, tells me that he knew Linn intimately, and for many years; that, when sober, he was very good-natured, and very fond of his wife and children, but that drink *set him mad*; that at the best, however, he was *uncertain* and *dangerous* in his temper; that he had been well 'schooled,' and could read and write; but that, in spite of his 'education' (Query, is not 'schooling' the more appropriate word?), he had always a peculiarly rough coarse way of speaking, and a taste for low vulgar language and pursuits."

Linn's head is a large one; the breadth is extraordinary, and the whole basilar region enormously developed. The temporal muscles are larger than usual, but after making ample allowance for this, the size of the subjacent organs appears inordinate. The head is of that globular kind which is so unequivocally indicative of a great development of the lateral organs. These observations will be rendered more plain by the following statement of the dimensions of the cast taken from the shaven head.

	Inches.
Greatest circumference of Head,	23½
From Occipital Spine to Individuality, over the top of the Head,	14½
..... Ear to Ear vertically over the top of the head,	14½
..... Philoprogenitiveness to Individuality, in a straight line,	8
..... Concentrativeness to Comparison,	7½
..... Ear to Philoprogenitiveness,	5
..... Individuality,	5½
..... Benevolence,	6
..... Veneration,	6½
..... Firmness,	6½
..... Destructiveness to Destructiveness,	6½
..... Secretiveness to Secretiveness,	7
..... Cautiousness to Cautiousness,	6½
..... Ideality to Ideality,	5
..... Constructiveness to Constructiveness,	6
Mastoid process to Mastoid process,	6

The largest organs are Combativeness, Destructiveness, Secretiveness, Cautiousness, Amativeness, and Acquisitiveness, all of which are enormous. Philo-



progenitiveness, Adhesiveness, Constructiveness, Self-Esteem, and Love of Approbation are also large. The coronal region is broad and rounded, and rises considerably at Veneration ; but on the whole it is rather flat, and, in proportion to the basilar and occipital regions, by no means fully developed. Veneration and Hope are the only considerable organs on the summit of the head. The surface rises at Benevolence ; but the space between Veneration and the top of the forehead is too small to be compatible with a great development of the former organ. We estimate it, therefore, as only full. Wonder, Ideality, Wit, and Imitation, seem likewise full. Conscientiousness is hardly so large. Among the knowing organs, Individuality and Locality are highly developed, unless the frontal sinus be unusually great. Form, Size, Weight, and Eventuality, also, are considerable, but Number and Order seem rather below the medium size. Comparison and Causality are moderate or rather full.

In thanking Mr Grattan for the valuable information which he had collected, we took occasion to send him, on 1st May 1835, the following remarks :—

“ It is evident that Linn was insane ; but at the same time there can be no doubt, that, naturally, his dispositions were quarrelsome and violent. It generally happens that the largest organs are those which fall into disease ; so that the kind of insanity of each patient in an asylum may, with very few exceptions, be inferred from the form of his head. Mr Combe did this several years ago in the Richmond Asylum at Dublin, and the cases were published in the *Phrenological Journal*. A phrenologist, looking at the head of Linn in a madhouse, would at once anticipate violent, outrageous, and mischievous insanity. I have no doubt that the circumstance of having a deformed lip, and in consequence a nickname, excited his Combativeness and Destructiveness to a higher pitch than they might otherwise have reached ; but unless the qualities had been naturally strong, no external circumstance of this sort could have made him the man he was. How many boys are tormented at school by insults more gross than that implied by a nickname, without becoming pugilists ! I have no doubt that for one nicknamed boy who turns out as violent and quarrelsome as Linn, twenty either slink off from the presence of their persecutors, or have no permanent effect on their tempers produced. I am confident, that, independently altogether of his deformity and nickname, Linn would have been very quarrelsome. Gibson’s report, that ‘ he was, at the best, uncertain and dangerous in his temper,’ and that ‘ he had always a peculiarly rough coarse way of speaking, and a taste for low vulgar language and pursuits,’ confirms me fully in the belief that such was his *inherent* character.

“ The amiable traits proceed chiefly from Adhesiveness,

which is very large. Benevolence, if I recollect rightly, is by no means considerable, and any kindness which he manifested would seldom go out of the circle of his personal friends and relations. Veneration is larger than Benevolence, but I doubt if he has much true piety and devotion.* Were theology not a field in which his love of controversy finds room for gratification, he would not care much about it. Amativeness is very large, and Philoprogenitiveness also is well developed. These, joined with Adhesiveness, made him kind to his wife and family. I do not remember to have seen a head where Combativeness was very large, without finding in conjunction with it a large Adhesiveness. The organs are adjacent, and, when Combativeness is great, very seldom present much difference in the degree of their development; and in accordance with this observation, the affectionate disposition of brave men has been proverbial from the time of Achilles downwards.

"Secretiveness is very large; and you may depend upon it Linn is sly and cunning, even when he has the aspect of simplicity itself. I strongly suspect that *some* of his religious feeling is counterfeit; though Veneration is too large, and his 'schooling' too favourable, to leave room for doubting that *much* of it is sincere. You would oblige me much by sending, if possible, some information about the manifestations of Secretiveness, and likewise of Acquisitiveness, which also is large. Constructiveness is another of the large organs, and its manifestations are abundantly obvious in the details sent. Cautiousness must be very strong too, and with Secretiveness would enable him to control and suppress his ebullitions, except when intoxicated or insane. I presume that, before marriage, his morals were dissolute. I write these observations from the recollection which I have of the appearance of the cast. It is not now before me; but I shall examine it with greater attention."

On 28th May 1835, Mr Grattan wrote as follows:—"Since my last communication, I have had a conversation with the sisters of John Linn, which fully corroborates every thing which I have already stated. He was the eldest child, and considerably their senior; in consequence they have no recollection of his very early years; but, as far back as they can remember, he had always the same character. In their own words, 'he was always *VERY passionate* and *VERY affectionate*;' and had so little command over himself, that the most trifling provocation was sufficient to drive him into ungovernable rage. One of his sisters described some occurrences of this kind. He was in bed, when, hearing his wife in altercation with a servant, she says his

* This was written at a distance from the cast; on inspecting it, we find Veneration somewhat better developed than we supposed it to be when the above remarks were penned.

breathing seemed absolutely to cease for a time, after which, bounding upon the floor with terrific energy and a force which actually shook the room, he gave vent to his accumulated wrath in violent imprecations and threats against the servant, whose life she really believes he would have taken could he have caught her; though all the time he was entirely ignorant of the offence she had been guilty of, and which was actually quite trifling.

“ On another occasion he and his father were attending a funeral, when a person tripped in crossing the road, and accidentally hit his father on the leg; and though there was no injury inflicted, nor any insult intended, he could not be restrained from falling upon the man and beating him unmercifully. The slightest broil in the street was sufficient to rouse him into violence, even though he had no concern whatever in it, and had perhaps left home fully determined to keep clear of quarrels.

“ Prior to his marriage, which was one that did not please his family, his affection for his sisters was considerable, and a calm look or quiet word from them would recall him to himself. But afterwards his attachment was transferred to his wife, of whom he was passionately fond. Upon his marriage, his father made over to him a small freehold property, which produced him a fair annual income for a person in his station, and established him in a spirit-shop; both of which, combined with his own trade of wheelwright and turner, he considered ought to have enabled him to provide amply for himself and family. He was extravagant, got into debt, sold his property, and in a very short time returned with his wife and children perfect paupers to the house of his father. From this period the family date all their misfortunes. As being an only son, and the eldest child, he seemed to consider himself entitled to every thing, and grudged every penny that was laid out upon the other members of the family. Constructiveness seems to be a family trait, as one of his sisters works most beautifully with her needle, and her father naturally felt pride in framing the pictures she worked for him and hanging them in his parlour; but his son, to whom he had been beyond measure liberal, considered this so unreasonably extravagant, that at last, to do away with the irritation and quarrels which they occasioned, the old man actually removed them from the room. Even after the commission of the murder, when an auction of his father's effects was determined upon, he sent a request to his sisters not to omit including in the inventory ten or twelve tons of coal which he knew to be in the house.

“ His sisters, indeed, consider him to have acted thus at the instigation of another; but, even supposing it so, the large Ac-

quisitiveness must have been there, or the solicitations would have struck no responsive chord in his bosom.

"As regards the manifestations of Secretiveness, I have not been so successful. He is stated to have been extremely credulous; that is, in so far as taking for granted whatever was told to him. He seldom seemed to look into any matter, but took for the truth whatever was first stated, and acted upon it; that, however, might be owing to powerful propensities with moderate intellect. When acting under the guidance of his wife, he would never admit that she had any thing to do with his conduct; this would look like Secretiveness, but still is not sufficient indication of a very large organ. It must, however, be confessed that the very character of Secretiveness is to throw a difficulty of detection over its own proceedings, and that the prejudices and feelings of society, as well as the ignorance which prevails upon the subject, oppose obstacles to arriving at the truth, in many cases insurmountable. He is stated not to have been particularly addicted to telling falsehoods, but, if questioned on a subject which he disliked answering, used rather 'to slip aside and get out of the way,' than deny it. His mechanical abilities were so great, that his sister says when he has received new models, his own work has generally been superior to the original. When unexcited, his habits were rather serious; and he was not addicted to swearing except when enraged. On the whole, therefore, we have in him an individual of great animal propensities, with disproportionate moral and intellectual faculties; and the former kept by injudicious culture in a state of high vigour and activity: but it is not clear to me that we would be justified in considering him as *insane* in the ordinary acceptation of that word. That he is an irresponsible being in consequence of *mal-proportion* of the brain I think is evident; and, as such, the safety of society requires that he should be kept under restraint; but not as an inmate of an asylum appropriated to the treatment of *diseases* of the brain, and where the faculties which might be employed to counteract his more active propensities are allowed to remain in total inactivity. He should be employed in some mechanical occupation for the benefit of his family, under circumstances which should preclude the hope or possibility of escape."

In a letter to Mr Grattan, dated 10th June 1835, we remarked—

"From the evidence of the witnesses at the trial, it would appear that Linn *was* subject to fits of mental derangement; probably arising, however, if this was really the case, from extreme development of Combativeness and Destructiveness. When an organ is very large, it is liable to excessive activity, and by this activity disease is often produced. What you say as to

his credulity seems to indicate unhealthy intellectual organs. The case must be treated on the presumption that disease probably existed for some time before the murder was committed. If no indications appear now, this must be owing to the quiescence of his brain in consequence of removal from exciting causes."

For eight months our correspondence with Mr Grattan ceased; but in a letter dated 3d February 1836, he communicated the following particulars, which, like those furnished by the sisters of Linn relative to the innate violence of his temper, shews in a striking manner that our confidence in the plain declarations of Phrenology had not been misplaced.

"If your account of Linn has not yet been printed, you will be pleased to hear the conclusion of his adventures. You observe in your letter of May respecting him, 'Secretiveness is very large; and you may rely upon it Linn is sly and cunning, even when he has the aspect of simplicity itself;' and expressed a wish for me to obtain some information on that point, in which I failed at the time. Since then, however, he has made his escape from the asylum under circumstances indicative of very considerable Secretiveness, and has altogether evaded pursuit. Linn conducted himself with so much propriety that he was frequently employed in the grounds to do labouring work; and, though he occasionally spoke of the hardship of being confined when he could earn bread for his family if sent abroad, he never shewed the slightest disposition to break bounds. 'In fact,' says my informant, a medical gentleman connected with the asylum, 'he was *as cunning as a fox*, and had no notion of making any attempt which would subject him to closer confinement; when he went about it he was determined to do it effectually.' It appears that, while employed in the grounds, he contrived to procure tools from some workmen engaged upon an addition to the building; and, one night in the end of October or beginning of November last, cut completely out of the wall the window of his cell, using his bedstead, turned upon its end, to raise him high enough to work at it. Through the opening thus made, he escaped without clothes, and is supposed to have got off to America. It is also supposed that he had previously contrived to arrange with his friends to meet him."

The character of Linn is so fully discussed in the foregoing correspondence, that there is little occasion for additional remarks. Whether he was insane or not, it is clear, we think, that a man with such a head ought not to have been permitted to roam at large, and endanger the safety of the public. Even although his habitual conduct had been smooth and peaceable, no phrenologist could have failed to regard him with distrust, and to penetrate the veil thrown sometimes by Secretiveness and Cautiousness over his real dispositions. We question

whether any phrenological superintendent of an asylum—Sir William Ellis of Hanwell, for instance, or Mr Browne of Montrose—would have been deceived by the external propriety of Linn's behaviour, and suffered him to elude their vigilance.

The sentence by which Linn was committed to a lunatic asylum instead of being executed, was most judicious, and completely in accordance with the views expressed in the first article of our present Number. Nor does the question whether or not *disease* of the brain existed, bear in any way upon this point. When propensities are uncontrollable, it is of no consequence, in reference to the punishment which ought to be awarded, whether the involuntary functional exaltation, of which, in both cases, their overpowering strength is the result, has its origin in disease or in the extreme development of a healthy organ. In the one case not less than in the other, the tendency to crime is the effect of an organic cause. In both, there is an intensity of passion which carries every thing before it, and which is the misfortune of the unhappy criminal rather than his fault. It is well observed by the philanthropic Cowper, in one of his letters, that "a man whose vices and irregularities have brought his liberty and life into danger, will always be viewed with an eye of compassion by those who understand what human nature is made of; and while we acknowledge the severities of the law to be founded upon principles of necessity and justice, and are glad that there is such a barrier provided for the peace of society,—if we consider that the difference between ourselves and the culprit is not of our own making, we shall be tenderly affected by the view of his misery; and the not less so because he has brought it upon himself."

R. C.

ARTICLE XII.

CASE OF SPECTRAL ILLUSIONS FOLLOWING AN INJURY OCCASIONED BY A BLOW ON THE FOREHEAD.

WHEN lately in Manchester, we visited the excellent school, for both sexes, of Mr Charles Cumber, a member of the Society of Friends. While conversing with us upon the heads of several of his pupils, he presented to us an interesting girl of about seventeen or eighteen years of age, who, he said, had received a violent blow on the middle of the forehead, just above the eyebrows, having run against the edge of an open door in the dark. She had since suffered much pain in the spot, and was retarded in her education probably in consequence of an injury to the organs of Individuality and Eventuality. It immediately occurred to us that there was a possibility that this girl

might have experienced some of the illusions which follow morbid action in that region of the brain ; and that, if she had, the case would furnish an instance of local affection from an obvious cause. We immediately asked her whether she was not visited by apparitions of persons and other objects ? She answered in the affirmative ; and from her description of her case, it appeared to us to resemble in several respects that of Miss S. L.* Her apparitions were as real as apparitions can be, and their appearance was always attended by increased pain in the part. They had alarmed and terrified her at first, but she told us, that, having been informed that they proceeded from a certain state of her brain, occasioned by the blow she received, her terrors vanished, and she does not now mind her visitors, when she ascertains them to be spectral illusions. We consider this a valuable addition to the evidence already accumulated on this curious subject, from the disease having a local ascertainable external cause. In Miss S. L. and Mrs D. pain was felt in the same region of the brain ; but this functional derangement was not clearly traced to a cause. Here is the local derangement and the pain, and here also is the local injury. The new case, therefore, not only adds another to those already possessed, but renders them of yet greater value than they were,—as proving, first, that spectral illusions proceed from derangement in the region of the brain where the knowing organs are believed to be situated ; and, secondly, that the phrenological allocation of these organs is correct. Our interview with the young lady was too short for particulars as to her experience ; but, as we hope to see her again, we may, in a future number, return to her interesting case.

ARTICLE XIII.

EDINBURGH LOGIC CHAIR.

IN our last Number we printed a letter by Mr Combe to the Lord Provost, Magistrates, and Council of the City of Edinburgh, accompanying his testimonials as a Candidate for the Chair of Logic in the University. Subsequently, he presented a second address, explanatory of the bearing of Phrenology upon the business of the Chair ; and, as the subject is in itself important without reference to passing circumstances, we give it here without abridgment.

* Vol. ii. p. 294. The cases of spectral illusions hitherto noticed in this Journal it may be convenient occasionally to collect for the sake of reference. Besides that of Miss S. L., they are noticed in vol. v. pages 210, 319, 430 ; vi. 260, 515 ; vii. 5, 162 ; viii. 538, 562 ; x. 47.

23. CHARLOTTE SQUARE,
EDINBURGH, 1st July 1836.

MY LORD PROVOST AND GENTLEMEN,

I beg leave to present to you a few additional Testimonials which I have received from the United States of America, and to avail myself of the occasion to offer some explanations regarding the grounds of my pretensions to the Logic Chair, which, I am informed, are still imperfectly understood by several members of Council.

It has been remarked, that, if a Chair of Phrenology were to be disposed of, my certificates might be deserving of attention, but that they have no relation to Logic.

I beg leave very respectfully to solicit the attention of those who entertain this opinion to the following words of Mr Dugald Stewart: "I have always," says he, "been convinced that it was a fundamental error of Aristotle (in which he has been followed by almost every logical writer since his time) to confine his views entirely to Reasoning or the discursive faculty, instead of aiming at the improvement of our nature in all its various parts ... If this remark be well founded, it obviously follows, that, in order to prepare the way for a just and comprehensive system of logic, *a previous survey of our nature, considered as one comprehensive whole, is indispensably necessary.*"*

The late Mr George Jardine, Professor of Logic in the University of Glasgow, in his "Outlines of Philosophical Education, illustrated by the method of teaching the Logic Class" in that University, says: "To the elements of the *science of the human mind*, therefore, I have recourse on the present occasion, as the *mother science*, so to call it, from which all others derive at once their origin and nourishment. Thus *logic, metaphysics*, ethics, jurisprudence, law, and eloquence, have their common origin in mind;..... and consequently an intimate acquaintance with the phenomena of mind must form a suitable introduction to the study of every branch of knowledge."—P. 45.

The Royal Commissioners appointed to visit the Universities of Scotland, in their General Report, observe, that "Logic may be rendered more elementary and useful, by being confined to a brief and general account of the objects of human knowledge, *the faculties by which it is acquired*, and the rules for the investigation of truth."—P. 28.

Assuming, then, that the philosophy of mind is indispensable to the formation of a sound and useful system of Logic, I beg leave to observe, that Phrenology, whatever notions of it individuals who have never studied it may entertain, is the philosophy of the human mind, based on observation of the mental organs.

* Philosophical Essays. By Dugald Stewart, Esq.; 2d edition, chap. ii. pp. 61-63.

The external senses may be adverted to in illustration of its nature and pretensions. In order to comprehend the philosophy of vision, it is necessary to study the following particulars:—

1. The structure and functions of the eye and optic nerve, which are the organs of this sense.

2. The effects of the condition of these organs on the powers of vision. One constitution of the eye, for instance, gives distant, another close vision. When the eye is diseased, we may see green objects as yellow, or we may see double, or we may be altogether incapable of seeing, according to the nature of the malady.

3. The relations of external objects to these organs. This head includes the science of optics, with its various applications to painting (*perspective*), astronomy, (*making of telescopes*), &c. &c.

If the philosophy of vision were studied, by merely naming, recording, and classifying its phenomena, without knowledge of the structure, functions, diseases, and relations of the eye, it would present precisely the same appearance which the philosophy of mind now exhibits in the pages of the metaphysicians.

In studying the works on mental philosophy by Dr Reid, Mr Dugald Stewart, and Dr Thomas Brown, who form the boast of Scotland in this department of knowledge, the following observations strike a reflecting reader.

1. These authors differ widely in regard to the number and nature of the primitive mental faculties.

If the philosophy of the senses had been studied without knowledge of their organs, we should probably have had, in like manner, disputes whether hearing and seeing, tasting and smelling, were distinct senses, or whether, by some metaphysical refinement, they could not all be referred to one sense.

2. They make no inquiry into the organs of the faculties.

3. They give no account of the obvious fact, of different individuals possessing the faculties in different degrees of endowment, which fit them for different pursuits.

4. They give no account of the effects of disease on the manifestations of the faculties.

5. They have given no philosophical account of the relations of external objects to the faculties, and could not do so while the faculties themselves continued unknown.

In consequence of these imperfections, it is impossible to apply, with reasonable success, the philosophy of mind, as taught by these distinguished authors, to any of the following purposes:—

1. To the selection of proper pursuits for individuals according to their capacities; or to the selection of persons endowed with the necessary natural ability to fill particular offices. Men of penetration accomplish these ends by the aid of their natural

sagacity, sharpened by experience; but metaphysical philosophy affords them no aid in doing so.

2. To the elucidation and treatment of insanity.

3. To the exposition of the relations of different sciences to the human faculties, an indispensable requisite in an effective system of education.

4. To the elucidation of the mental causes which produce the tendency to crime.

5. To the exposition of the effects of the condition of the bodily organs on the powers of mental manifestation.

Phrenology, on the other hand, is recommended by the following considerations:—

1. No faculty of mind is admitted as primitive until the organ by which it is manifested be ascertained by observation.

In consequence, the phrenologists no more attempt to make and unmake faculties, or to analyze one into another, than they would attempt such feats in regard to the external senses. Every faculty stated as ascertained in Phrenology stands forth as a distinct mental capacity, whether of feeling or of thought, resting on the stable foundation of an organ, having specific functions, and standing related to determinate objects, very much as the external senses appear when studied in connection with their organic apparatus.

2. The fact is ascertained by observation, that the power of manifesting each of these faculties is in proportion, *cæteris paribus*, to the size of its organ; and that the relative size of the organs differs in different individuals.

Hence, it is possible to ascertain the strong and feeble powers in individual minds, and to apply this knowledge in dedicating them to particular pursuits. The same knowledge renders it possible to select persons enjoying particular mental qualifications to fill particular offices.

3. The mental faculties being studied in relation to their organs, their constitution in health is philosophically ascertained, and it becomes easy to understand their appearances under the influence of disease.

4. The fact, that, *cæteris paribus*, the power of manifesting the faculties is in proportion to the size of the organs, enables us to comprehend how some individuals, from having the organs of the animal feelings in excess, and the organs of the moral emotions in a state of deficiency, are prone to crime; and the knowledge of it aids us in their treatment.

5. The mental faculties being specifically ascertained by means of their organs, it becomes possible to determine the relations in which they stand to external objects; in other words, to form a rational system of Logic, and a really philosophical plan of education.

It is generally admitted, that Logic and mental science, as at present taught, are inapplicable to any practical purpose, except serving as a species of gymnastics for exercising the mental faculties of the young.

Professor Jardine, in speaking of the state of Logic when he entered the University of Glasgow, uses these words: "During several sessions after my appointment, the former practice was regularly followed; that is, the usual course of logic and metaphysics was explained by me in the most intelligible manner I could—subjected, no doubt, to the same animadversions as my predecessor. Though every day more and more convinced me that something was wrong in the system of instruction pursued in this class—that the subjects on which I lectured were not adapted to the age, the capacity, and the previous attainments of my pupils, I did not venture upon any sudden or precipitate change. Meanwhile, the daily examination of the students at a separate hour, gave me an opportunity of observing that the greater number of them comprehended very little of the doctrines explained; that a few only of superior abilities, or of more advanced years, could give any account of them at all; and that the greatest part of the young men remembered only a few peculiar phrases, or technical expressions, which they seemed to deliver by rote, unaccompanied with any distinct notion of their meaning. Impressed with this conviction, which the experience of every day tended to confirm, I found myself reduced to the alternative of prelecting all my life on subjects which no effort of mine could render useful to my pupils, or of making a thorough and radical change in the subject-matter of my lectures." —P. 28.

Professor Jardine informs us, that he did make "a thorough and radical change in the subject-matter of his lectures" accordingly; and no doubt he introduced great improvements: but you may easily ascertain by inquiring at the students of the latest session, whether the foregoing observations are not, in a great degree, still applicable even to the most improved systems of Logic taught in the Scottish Universities. On this subject, indeed, Mr Stewart speaks emphatically. Alluding to the long prevalence of Aristotle's Logic, he remarks, that "the empire founded by this philosopher continued one and undivided for the period of two thousand years; and, even at this day, fallen as it is from its former grandeur, a few faithful and devoted veterans, shut up in its remaining fortresses, still bid proud defiance in their master's name to all the arrayed strength of human reason."* "As to Logic in general," he observes, "according to my idea of it, it is an art yet in its infancy, and to the future

* *Philosophical Essays*, p. 66.

advancement of which it is no more possible to fix a limit, than to the future progress of human knowledge."—P. 63. Again, he remarks, that "to speak in the actual state of the world of a complete system of logic (if by that word is meant any thing different from the logic of the schools), betrays an inattention to the object at which it aims, and to the progressive career of the human mind; but, above all, *it betrays an overweening estimate of the little which logicians have hitherto done, when compared with the magnitude of the task which they have left to their successors.*"—P. 64. In accordance with these remarks, you will observe, that in the Testimonials presented to you in favour of the champions of the existing school, no allusion is made to the *utility* of the doctrines, either in Metaphysics or in Logic.

The questions for you to determine, therefore, are, Whether the teaching of Logic in your University shall be continued on a system which the experience of ages has demonstrated to be nearly useless, and which has been condemned as barren by the highest authorities in mental philosophy;—Or whether you will endeavour to introduce a new system, founded on the improvements in mental science which have recently taken place—rational, practical, and in harmony with the spirit of the age. If the former be your determination, then you should by all means reject my pretensions; but if you aim at the latter alternative, I very respectfully solicit your suffrages, because I appear before you as the representative of a new mental philosophy, capable of affording a basis for a sound system of Logic; and I have endeavoured to prove by evidence in my testimonials that that system is founded in nature, and applicable to practice.

In forming your judgment on these two questions, it may not be without advantage to bear in mind, that the history of all scientific discoveries establishes the melancholy fact, that philosophers educated in erroneous systems have in general pertinaciously adhered to them, in contempt equally of the dictates of observation, and of mathematical demonstration. You cannot, therefore, reasonably expect that the masters of the expiring systems should, in the present instance, view with any favourable eye the pretensions of the new. Experience also shews that it is equally true in philosophy as in the affairs of ordinary life, that "coming events cast their shadows before;" in other words, that the opinions of the young present the best index of the doctrines which will prevail in the next generation. There is no instance in the records of science, of the authority of great names, even although sustained by the energy of civil power, proving successful in permanently supporting error in opposition to truth; and neither is there an example of any established University, which had at an early period embraced a great dis-

covery in science, having had occasion afterwards to repent of having done so.

In applying these historical facts as principles of judgment to the present case, I would respectfully remind you that Phrenology is now in the forty-eighth year of its promulgation, and that during the whole period of its history it has been opposed, ridiculed, misrepresented, and contemned by almost all the men whose intellectual reputations rested on the basis of the philosophy which it is extinguishing; and that nevertheless it has steadily advanced in public estimation, until at present, even in weighing the mere authority of names against names, it stands in Europe on an equality with the older systems, and in America it has unquestionably the ascendancy. Farther, in looking at the state of opinion in your own city on the subject, it is certain that while you will hear Phrenology condemned by the more aged patrons of the ancient school, you will find the young ardent inquirers into its doctrines. Your acute and learned member of Council, Bailie Macfarlan, will correct me if I am in error in stating, that in 1823, when he so ably and eloquently defended Phrenology in the Royal Medical Society in this city, he had scarcely any supporters; but that in proportion as he persevered, season after season, in lifting up his testimony in its favour, he found himself backed by a constantly increasing minority. And I am informed that, now, so numerous are its adherents in that body, that questions touching its truth and merits are generally carried by majorities in its favour.

In nominating a Professor of Logic, you are providing a teacher for the young; and I very respectfully beg of you to consider whether it is probable that, with the testimonials in favour of Phrenology which have been presented to you in their hands, with the books and museums on the science before their eyes, and with the constant advocacy of its truth by a highly influential portion of the periodical press, the students of the rising generation will readily bow to the authority of a philosophy which never satisfied men of practical understandings, even when it was supported by public opinion and the highest names, but which is now generally proclaimed as being useless, and which is brought into competition with a newer, a better, and a highly practical system of truth.

I have been told, that, to rest my claims on the truth and utility of Phrenology, is to deprive myself of the benefit which I might otherwise have derived from the talents which I have displayed, and the beneficial uses which I have made of them, however humble these may be. I profess myself altogether incapable of comprehending this objection. I found my pretensions on Phrenology, because I entertain the sincere conviction that no rational or useful system of Logic can be reared without

its aid. If you have confidence in the judgment and good faith of the gentlemen who have honoured me with Testimonials, you have grave authority for admitting the reasonableness of this opinion. To reject my claims, therefore, because they are based on and bound up with Phrenology, would be simply to shut your eyes to doctrines which have been certified to you by men of the highest talents and philosophical reputation, as constituting the only basis of a sound system of Logic.

It may appear to savour of egotism in me to observe, further, that on your decision in the present instance will depend, to some considerable extent, the prosperity and reputation of your University for the next generation; but I venture to do so, because I speak not of my own importance, but of that of a great system of natural science, to the prosperity of the University of Edinburgh. As an individual I am utterly insignificant; but if, in rejecting me, it shall be understood that you refuse to admit Phrenology as a science within your academic walls, then you may injure the institution over which you preside. Phrenology stands in much the same relation to the philosophy of mind and its applications, in which the discoveries of Copernicus, Galileo, and Newton stood to astronomy and physical science. It is calculated to remove mystic speculations, and to supplant them by facts and the sound inductions of reason. Its first and greatest influence will be felt in leading to an important reformation in the subjects taught in classes dedicated to moral and intellectual science. Its next effect will extend to the improvement of education, rendering it at once philosophical and practical. But it will exert a still more extensive influence. Phrenology is the doctrine of the functions of the brain, and I feel and aver that if it were once admitted into your University as science, Professors of Physiology might soon find it prudent to instruct their pupils in its principles, else they would fall behind their age. It is the foundation of the most rational views of insanity, and Professors of Medical Jurisprudence might find it proper to give effect to its doctrines, in preparing their pupils for judging of this form of disease. It affords an intelligible clue to the reciprocal influence of mind and body, and teachers of the Theory and Practice of Medicine might, I trust, be induced to avail themselves of its lights in their prelections. But while I say these things, permit me to assure you, that, if placed in the Chair, it would be my earnest study, as it would be my duty and my interest, to avoid giving offence to any one; and I am persuaded that I could teach Logic on phrenological principles without doing so.

In short, were the new philosophy introduced into your University, a very few years would justify the wisdom of your decision; and you would maintain for your Seminary that pre-

eminence as a seat of unfettered and liberal study, which it has already enjoyed, and which contributes so greatly to the fame and prosperity of the city.

On the other hand, if you shall shut your eyes to the pretensions of the new science, you will proclaim to the world that the University of Edinburgh is not disposed to take the lead in adopting the new lights of the age, and a short period may suffice to reveal to you a decline in its prosperity, which it may be extremely difficult to arrest.

I am aware of the criticisms to which I expose myself in making these remarks; but criticism has already done its worst on me, and I have nothing farther to fear from its severity. If I did not state to you truths, and truths of the utmost importance to the welfare of your University and City, I should be bound to submit to obloquy, because it would be merited; but if I merely present to you facts founded in nature, and endeavour to open your understandings to the perception of consequences which a few years may realize, I appeal to public opinion when enlightened by experience, to decide on the merits of the course which I have pursued.

I have the honour to be, &c.

GEO. COMBE.

We subjoin a report of the proceedings of the Council on the day of election. Our limits render it necessary to abridge such portions of the speeches as have no bearing on Phrenology; but as our main object is to record evidence of the estimation in which Phrenology is at present held by the general public of Edinburgh, the omission of some extraneous matter is of little importance.

July 15. 1836.—A special meeting of the Town Council was held this day, in order to appoint a Professor to the Chair of Logic. The Lord Provost was in the chair.

The clerk read the list of the candidates, who were Sir William Hamilton, Mr P. C. M'Dougall, Mr Combe, Mr Isaac Taylor (author of *The Natural History of Enthusiasm*), Dr Memes, Lieutenant-Colonel James Stewart, Mr Dunlop, the Rev. Mr Muston, the Rev. Mr Rae, and Dr R. Poole. Mr H. G. Bell and Mr Spalding, advocates, had previously withdrawn their names as candidates. Dr Memes also now resigned.

The Lord Provost said, that he felt quite inadequate to do justice to the candidate he was about to propose. Gentlemen might say what they pleased in favour of those they were to propose, but he trusted as little as possible against the others who were put in competition, for such a constellation of talent had not yet appeared as candidates for any office the Council had

at their disposal. In proposing Sir William Hamilton he felt perfectly satisfied, that if he was the successful candidate, the Council would do credit to themselves, and honour to the University by the selection.

Mr Bruce had great satisfaction in seconding the nomination. He might say, that not only were the eyes of the citizens fixed upon them, but the eyes of all England who were interested in the advancement of science—nay, he might go further, and say, that the attention of the most distinguished philosophers both in Europe and America was fixed on the decision of this day. Mr Bruce then referred at great length to the series of splendid names which bore testimony to the European reputation of Sir William Hamilton as a metaphysician; and to the testimony from Oxford, stating, that, on his examination there, no one, even among the professors, was found to compete with him—that his examination stood unrivalled in their records, and that the impression it made at the time was not yet effaced. He then compared his qualifications with those of the other candidates, and stated, that of the splendour of Mr Taylor's talents there could be no doubt; but of his fitness as a teacher of logic there was no evidence. With respect to his eminent friend Mr Combe—for he delighted to call him so—his supereminent talent had brought the science of Phrenology to its present state in this country; but it was a science in which he (Mr B.) was not prepared to say he fully concurred. That it had a foundation he believed, but that it had so extensive influence on the human character as Mr Combe stated, he had great doubts. Under these circumstances, then, he could not bring his mind to support Mr Combe. For the sake therefore of the University—for the credit of the Council—and to meet the expectations of all men of science, he trusted Sir William Hamilton would be their choice on this occasion.

Dr Neill said, the candidate I am about to propose has already been complimented by my friend Mr Bruce for his supereminent talents—I mean Mr Combe. He stands at this moment in a most influential position, both with regard to education and mental philosophy; and he has attained this influential position notwithstanding the most powerful and persevering efforts of men of the greatest talents to put him down. Indeed, I believe it would be pretty generally admitted that Mr Combe's claims are paramount, had he not been the great champion of Phrenology. It seems to be feared by one set of the gentlemen around this Board, that Mr Combe would teach Phrenology in the Logic class, and that the prejudice against Phrenology is still so strong in this city, that Mr Combe would neither be acceptable to the Senatus nor to the public. I have no fear on either of these points. Mr Combe would undoubtedly teach Logic on phreno-

logical principles ; so would Dr Welsh had he been invited to the Chair ; so would Dr Poole were he to be elected to it. I may add I am deeply persuaded that Logic will never make sure progress till it be taught on those principles, and it is quite possible to teach Logic on phrenological principles without giving offence—nay, almost without using phrenological language. In one instance, indeed, an essay was published, treating a medical subject on phrenological principles, but without using phrenological terms. The essay was an excellent one, and was highly praised by anti-phrenological doctors, whose prejudices would certainly have induced them to withhold their meed of praise, had phrenological language been employed. As to the prejudices, I believe they would soon die away. Mr Combe's lectures would be numerously attended ; and when the old Professors came in close contact with the new one, they would, I am sure, be agreeably surprised : they would find an accomplished scholar and an accomplished gentleman, with a very clear head and very kind heart,—a man quite disinclined to giving offence. “ In case (says Mr Combe in a private note, and he has stated the same thing in substance in the last series of his printed testimonials) —in case I shall be placed in the Chair, I shall consider it a duty equally to the Patrons, to Phrenology, and to myself, to use every means of avoiding offence to old feelings and prejudices.” A great change has of late years taken place in the public mind regarding the discoveries and doctrines of Dr Gall. Ten years ago they were treated with contempt and ridicule by the Edinburgh Reviewers ; but now these learned gentlemen maintain a most respectful silence. The day for twitting about bumps has gone by. “ Where be all their gibes now ? ” Really the Reviewers seem quite “ chopfallen ; ” and assuredly Mr Combe's testimonials must put a final extinguisher on their anti-phrenological wit, for many of those testimonials proceed from the friends of the Reviewers. They now seem only to object that Phrenology is not one of the exact sciences,—an objection equally applicable to Medicine. The Lord Provost has told us that we ought to consider ourselves as jurymen. I agree to this. I call upon the Council to act as a jury ; and I am bold to say, that Mr Combe's witnesses are many of them on a par with those brought forward by Sir William Hamilton. Again, it is thought that some of Mr Combe's views are at variance with certain fundamental doctrines of our religion. Although no letters of mine are produced, yet some addressed to me, and circulated along with Mr Combe's testimonials, bear intrinsic evidence of my readiness to sympathise with such fears. I am glad to have been the means of making it appear, from the testimony of an eminent Professor of Divinity in the Secession Church, that the doctrines of Phrenology are nowise inconsis-

ent with the truths of Christianity ; and, from Mr Combe's explanations, that he is not nearly so heterodox in his views as some appear to have taken for granted. I have reason to hope that the nomination of Mr Combe will be seconded ; but I confess I have also reason to fear that his supporters will be sadly in the minority. This I shall regret, for I am convinced that Mr Combe's appointment would at once benefit the University, do credit to the City, and honour to this Council, who would thus anticipate by a score of years the sure verdict of our successors in favour of the new system of Mental Philosophy. It now appears, however, that the contest lies between Sir William Hamilton, Mr M'Dougall, and Mr Taylor. In one respect, they are all objectionable to me. They will all teach more or less on the old system ; they are all anti-phrenologists. But the last-named will, I think, be less afraid of change ; indeed, he is pledged to change ; and from all that I have seen and heard of him, he will not shut his eyes to the evidence of Phrenology, but will be open to conviction.

Mr Milne seconded the nomination of Mr Combe.

Mr Mackay then rose and said, that on the best of all evidence, an intimate personal acquaintance, Dr Chalmers had recommended to their notice a countryman of their own, distinguished by his attainments in literature and science, whose moral and religious character eminently qualified him for being a teacher of youth. In a case of such importance, they certainly should prefer evidence at home to foreign testimony ; and he might add, was there an individual at home or abroad better qualified than Dr Chalmers to give an opinion and advice as to the fittest person to fill this chair ? Mr Mackay concluded by proposing that Mr Patrick Campbell Macdougall be the Professor, and entreated the Council to give effect to the nomination.

Mr G. Graham seconded the motion.

Bailie Macfarlan agreed with Mr Bruce as to the importance of the duty they had to perform, and that the eyes of their countrymen were upon them. They were assembled to be tried at the bar of public opinion, and upon this he was quite willing to rest the result on this election, for, as the Lord Provost had said, there was a constellation of talent before them. He felt satisfied that the choice could fall on no man who was not eminently qualified to discharge the duties of that Chair. He had read several of the Edinburgh Review articles of Sir William Hamilton, for whom he had the highest respect, and while he thought those articles displayed a great deal of profound knowledge, he still conceived they did not appear to carry out the high reputation wherewith Sir William Hamilton had started ; and to this day he thought the appearance of Sir William Ha-

milton at Oxford was the highest testimonial that has been produced in his favour. He (Bailie Macfarlan) quite agreed in what had fallen from the Lord Provost, that they ought to consider themselves as placed in a jury-box, there to consider the testimonials laid before them, and to form their judgment accordingly. But he had yet to learn that any jury made up their minds upon evidence of one particular kind, and were not accustomed to take all the statements laid before them. No doubt testimonials were an important branch of this, but there are other testimonials within every one's reach, and upon which every man of common sense was able to form a correct opinion. These were the public works of the individual, and these works they could judge of with as great freedom as of the testimonials of learned and scientific men. If they confined themselves to testimonials, and refused to exercise their own judgment, then none of the candidates could equal Mr Combe in that respect, whether they considered the number or value of the testimonials. Mr Combe had testimonials from French philosophers of as great eminence as those in favour of Sir W. Hamilton, as, for instance, Broussais, Turpin, Bessieres, Richard, &c. ; he had also a testimonial from Archbishop Whately. Mr Combe had testimonials from every quarter of the world ; and the Council had the knowledge of the fact, that Mr Combe was considered one of the most enlightened men of the age, and had proved himself one of the most successful teachers and ablest lecturers ; yet, notwithstanding all this, he (Bailie M.) understood distinctly from Dr Neill, who did not expect above one or two supporters, that the Council had judged from other circumstances than the mere production of testimonials. Therefore he held that they ought to deal evenhanded justice, and do with others as with Mr Combe. He concluded by nominating Mr Isaac Taylor.

Bailie Sawers seconded the motion.

(Here there were cries of " vote, vote," but Mr Deuchar insisted on being heard.)

Mr Deuchar stated he felt deeply the responsibility which attached to him as an individual on this occasion, and it was with much diffidence that he ventured to give an opinion on a subject which involved the best interests of our University. But when he considered the mighty influence which a professor of Logic would undoubtedly have on the thousands of youthful minds who should successively be placed under his charge, it was of the highest importance that they selected a person not only distinguished for his talents, and whose literary fame would shed a lustre on our University, but whose pious and religious character was such as to afford the stronger guarantee to parents that their sons would be in no danger while listening to their teacher, of imbibing the insidious poison of scepticism which so

abounded in the works of many eminent men who had written on mental philosophy. Mr D. observed, that although all the candidates who had been named were men of high literary attainments, he would only direct attention to three of them. First, Mr Combe. No one could deny Mr Combe's abilities and great scientific attainments; but he was the teacher of a new philosophy of mind, which, even were it true in theory, had not been satisfactorily tested by experience; and while the great majority of learned men are opposed to the doctrine, it would be great presumption in this Council of thirty-three, and indeed a gross dereliction of duty, were they to suppose that by joining the minority they could turn the scale of opinion, and thereby establish Phrenology. In this view of the subject, he (Mr Deuchar) was saved the necessity of giving any opinion on the merits of Mr Combe's celebrated work on the Constitution of Man; but he could not help expressing his decided opinion that many of the doctrines therein promulgated tended to subvert revelation, and were consequently injurious to the best interest of man. Second, Sir William Hamilton. He at once admitted that this gentleman's testimonials were of the first order, and Mr D.'s only surprise was, that a man so eminent for talent, so full of mental power, and so acute as a philosopher, had not made greater efforts to supply a text-book on logic, or to favour the public with an enlarged or connected system of mental philosophy. He might write well for the few, and that was admitted; but he had not written for the many, which would be the duty of the logic professor. On the point of religion Mr D. was bound to say a few words. What were Sir William's sentiments? He might be a religious man. Mr Sinclair's testimony was only a statement of vague belief that he was. No direct testimony, however, was given, and the Council was entitled to have the fullest evidence on this subject. Mr D. next adverted to Mr Taylor, who, he said, by his able and valuable works, had gained a name in the literary world which would, if he were elected, shed a lustre on our University.

Mr Jameson said, he was about to vote for Mr Taylor, a gentleman whom he considered the superior man, especially on religious grounds. On this subject he wished to speak with reverence; he wished he was more under its influence; but he trusted that all the Council recognised its importance. They would not forget the fervent and pious sentiments in the prayer of the eloquent clergyman (Dr Muir) who had opened their meeting, that they would remember they were in the presence of God discharging a most important duty—a prayer which had touched his heart, as he trusted it had done the hearts of his brother Councillors. It had been said that there was a constellation of talent competing for this chair. He suspected that a

good deal of the refulgence which struck gentlemen so forcibly, was in consequence of the nearness of some of the objects, and that what was distant was not so brilliant. Mr J. then referred to the obscurity of Sir W. Hamilton's style of writing as an objection; and added, that had the splendid abilities for which in his testimonials he got credit been available, they would have exhibited themselves in his present Chair. But, instead of this, Sir W. Hamilton, he contended, was not known except from his connection with the Edinburgh Review, and it was well known that the theological philosophy of that journal was not in high repute; that its religious principles were generally regarded with suspicion. (Mr Black, "trash.") Perhaps any thing he (Mr J.) could say on the subject of religion, would seem trash in the eyes of some people—(here there was considerable impatience manifested in the Council.)

The Lord Provost called Mr Jameson to order. Such language could not be permitted.

Mr Johnstou contended that when candidates came forward, their whole character was before the public; and that Mr Jameson was quite in order in discussing Sir W. Hamilton's religious qualifications.

Mr Bruce put it to Mr Jameson whether the fact of having written a few articles for the Edinburgh Review made Sir W. Hamilton responsible for the religious opinions of that journal.

Mr Jameson, after a pause, again proceeded to address the meeting, and concluded by again expressing himself decidedly in favour of Mr Taylor.

Treasurer Black said, that before Mr Jameson spoke, he did not see any necessity for further speaking on the subject; but there was one part of that most extraordinary speech which he could not but notice. It was one of the unpleasant signs of the times that they found men, whenever they had an object to carry, making a stalking-horse of religion (hear, hear). Whatever matter was under discussion, one party was sure to raise the cry of heresy against the other—a cry which has done more mischief, since first it was raised to the present moment, than any thing else in the world. He believed there had been men who had joined the holy office of the Inquisition, and burned their fellow-creatures, thinking they did God service; and that there were many persons in modern times who carried their principles to the extreme, under the idea that they were promoting God's glory. But there was another class of men, who, while they were in the constant habit of taking the name of God in vain, while they took no active interest in the promotion of real religion in the world, did yet come forward with hypocritical, canting, whining speeches on religion when they had a point to carry (Hear). When he (Mr B.) met with such men, he was filled

with infinite disgust. He could excuse those who through their whole life had manifested strong and ardent zeal in promoting their own religious principles, and who, in their ordinary conduct, were apt to carry their zeal too far; but when individuals who had never shewn themselves to be influenced by religious zeal, and who yet came forward under the semblance of it to carry their point—who could help feeling the utmost disgust? (Mr Howden “To be sure.”) He (Mr Black) thought the last speech had let out a great deal of the influence which had been used against Sir W. Hamilton. He had no doubt that there had been much talking about the German philosophy being contrary to sound theology. They did not perhaps say that Sir William was an infidel; they dared not do that; but in a calm, quiet, serpent-like, creeping way, insinuated and left the inference to be deduced that he was an infidel. But how was it argued that he was not favourable to religion? Why, because he had written some articles in the *Edinburgh Review*. Was it then to be said that the religious opinions of all who had written in the *Edinburgh Review* were to be suspected? Dr Chalmers, it was well known, had written in the *Edinburgh Review*, and in that case it would follow that he was not favourable to religion (Hear). He (Mr B.) had taken as much interest in promoting religious societies as most of those gentlemen who opposed Sir W. Hamilton on religious grounds; but he had not found those who were so eloquent on the fear of religion being injured by Sir W. Hamilton, take the same interest in promoting religion, but had stood aloof, leaving it to others.

Mr Russell read extracts from the writings of Dr Chalmers, Dr Wardlaw, and Mr Buchanan of Leith, to shew that it was of great consequence to unite religion with the teaching of philosophy. He considered Mr Taylor best qualified to do this, and therefore he should vote for him.

Mr Johnston wished to have a guarantee that Sir William was sound in regard to religion; and he asked if it would be proper in the Council to elect a person to the Chair of Logic whose principles in that respect were not guaranteed even by his stoutest advocates. He (Mr J.) also wished for evidence of his qualities as a teacher.

Mr Gifford also contended for the superior claims of Mr Taylor in a religious point of view.

After a few remarks from Mr Whyte and Mr Laing, the latter of whom said the argument was all on his side,

Mr McLaren said, that Mr Johnston had called particularly upon him for evidence of Sir W. Hamilton's Christianity, and said, that if he could assure him (Mr J.) of this, and quiet his conscience upon that point, he would be satisfied. It was, he said, a very unlikely thing that he (Mr McLaren) would guar-

antee the religion of Sir William Hamilton, a gentleman whom he had never seen, and whom he would not know if he were then present. He had never been asked to vote for Sir William Hamilton, except by an elder of the Church, who was now present, Dr Macaulay. It was ludicrous to call on him to guarantee Sir William Hamilton's religion. He would not guarantee the religion even of Mr Johnston (a laugh). He knew nothing of any man's religion except occasionally by his works, which was the best criterion that he knew to judge by. He knew several dissenting clergymen both in the town and country, who thought that Sir William Hamilton would be infinitely superior to Mr Taylor in the Chair of Logic, and he did not know one clergyman who held the reverse of this opinion. He knew many who looked with disgust upon the circumstance of religion being so frequently made a stalking-horse of in cases where it ought not to be introduced; and he must say that to-day he had heard no sneering against religion, but against its being used in this way.

Dr Macaulay said, it was quite true that he had asked Mr M'Laren to vote for Sir William Hamilton, that he had intended to do so himself up to Monday last, when he had learned, on returning from London, that Mr Taylor was positively a candidate. On reconsidering the question, he had since become satisfied in his mind, that, on the score of religion, Mr Taylor was the fittest of the two candidates; and in voting for him, as he intended to do, he was quite willing to take the responsibility attaching to his change of opinion.

Convener Dick said, while I cannot properly be called a phrenologist, I believe that the principles are founded in nature; and, as Mr Combe has proved himself a successful and a popular teacher, and a sound physiologist and logician, I shall, in the first place, vote for him.

Mr Duncan gave his reasons for preferring Sir William Hamilton.

The Council then proceeded to vote upon the whole list of candidates:—

For Sir William Hamilton—The Lord Provost, Bailie Donaldson, Bailie Stodart, Treasurer Black, Councillors Watson, Howden M'Laren, Ponton, Baird, Duncan, Robertson, Granger, Grant, and Bruce—14.

For Mr Taylor—Bailie Macfarlan, Bailie Sawers, Councillors Deuchar, Jameson, Russell, Gifford, Banks, Whyte, Laing, and Macaulay—10.

For Mr M'Dougall—Dean of Guild Lamond, Councillors Johnston, Mackay, Gillespie Graham, and MacLagan—5.

For Mr Combe—Convener Dick, Councillors Neill and Milne—3.

At the close of this vote, the proposers of the two last named

candidates agreed to withdraw them, when another vote was taken for Sir William Hamilton and Mr Taylor, and, in addition to those we have already named, there voted,

For Sir William Hamilton—The Dean of Guild, the Conve-
nor, Councillors Gillespie Graham and Milne, giving a total
number of 18.

For Mr Taylor—Councillors Johnston, Mackay, MacLagan,
and Neill, total 14.

ARTICLE XV.

THE HARMONY OF PHRENOLOGY WITH SCRIPTURE: shewn
in a Refutation of the Philosophical Errors contained in Mr COMBE'S
"Constitution of Man." By WILLIAM SCOTT, Esq. Edinburgh: Fraser
& Co.; Smith, Elder, & Co., London; Curry, Dublin. 1836. Post 8vo,
pp. 332.

THIS book, as its title announces, is intended as a refutation
of Mr Combe's "Constitution of Man." It contains a whole
tissue of perversions and misrepresentations of the doctrines
taught in that work, and declamations against it, with a very
slender intermixture of reasoning. It is replete with inconsis-
tencies, and so completely overshoots the mark, even on its own
side, that we doubt much whether the party for whose gratifi-
cation it is written will thank the author for his zeal. It is an
example of the immolation of truth, reason, and philosophy, at
the shrine of political and religious prejudice. We have not
here space to enter into details; but we feel no regret in
leaving to Mr Scott the full advantage of a free field, as
every enlightened reader will regard any answer to it as a waste
of paper and of words. Mr Combe's book has now attained
such an extensive circulation, that it cannot suffer from misre-
presentation; and if its merits be not sufficient to support it
against attacks ten times more powerful than this, it deserves to
fall.

ARTICLE XVI.

STATISTICS OF PHRENOLOGY: being a Sketch of the Progress and
present State of that Science in the British Islands. By HEWETT C.
WATSON. London: Longman & Co. 1836. 12mo, pp. 242.

WE received this work after more than the full limits of the
present number were filled up; but it is so valuable a contribu-

tion to the cause of Phrenology, that we add a second extra sheet to be enabled to introduce it to our readers. In our last number we printed a circular addressed by Mr Watson to the phrenologists of Britain, requesting answers from them to certain queries on the subject of Phrenology; and the present volume is, in a great measure, the result of the answers received. He has executed his task admirably; and no phrenologist should be without a copy of his work. "In publishing this sketch," says Mr Watson, "of the progress hitherto made by Phrenology, in public estimation, I am actuated by the hope of lending some small assistance towards accelerating its future advances. The open adherents of the science have hitherto been like so many isolated individuals scattered throughout Britain, unaware of their own collective strength, and exerting little encouraging influence upon each other. They have been accustomed to meet with opponents more frequently than with friends. The cautious, the approbative, and the politic have thus been deterred, in too many instances, from the energetic support of doctrines which required strenuous and uncompromising efforts for effecting their diffusion, and general reception by the community; while the enemies of these doctrines, profiting by the backwardness of phrenologists, still continue to reiterate their assertions that the whole system is fast hastening into oblivion. In consequence, many persons have been prevented from giving an attentive consideration to the subject, and still are so. But the present volume will shew that the aggregate strength of phrenologists is now by no means inconsiderable; and, what is much more important, it will prove beyond all possibility of doubt or dispute, that the numbers and influential consequence of the adherents to Phrenology have gone on steadily increasing up to the present moment; an increase that bids fair to proceed at a much greater rate in future. This fact should cast down all the fears and scruples of phrenologists, and incite them to more vigorous efforts for accelerating the final triumph of their science, with all its concomitant advantages to themselves and their race. If phrenologists be aroused and encouraged by the prospect of a speedy and complete triumph, an opposite effect must be produced on their opponents; to the more shrewd and prudential of whom this small volume will supply cogent hints, that it is likely to prove a much safer and more politic course, to avoid bringing themselves again into collision with Phrenology and its adherents, and will also admonish them to invoke a forgiveness and speedy oblivion of past transgressions."

The contents of the work are as follows:—

"SECTION I. *Historical Sketch of the Progress of Phrenology, considered in respect to its Reception by the Public.*—Early history—Spurzheim's first visit to England, and publica-

tion of the *Phrenological System*—Progress of the science thence to the publication of Combe's *System of Phrenology*, 1815—1825—Growth of the science in the same interval—The *System of Phrenology* and the *Edinburgh Review*—Examples of opposition to the science subsequent to 1825—Increased attention to the subject in the present day—Future prospects.

—SECTION II. *Present State of Phrenology, considered as a Branch of Science or Philosophy*.—1. Definition of the science and its objects—2. Metaphysical ideas of mind—3. Leading principles of the science—4. Uses—5. Objections—6. Evidences—7. Suggestions for the study of Phrenology—8. Suggestions for diffusing a knowledge of the science—9. Suggestions for checking uncandid opposition—10. Comments on the opinions of correspondents.

—SECTION III. *Local Diffusion of Phrenology*.—State of the science, and steps taken to diffuse the knowledge of it, in Aberdeen, Alrth, Arbroath, Bakewell, Bath, Belfast, Beverley, Birmingham, Bolton, Boston, Bradford, Brechin, Bristol, Bungay, Cambridge, Chatham, Cheltenham, Cork, Coventry, Cupar, Derby, Dingwall, Doncaster, Dublin, Dumfries, Dunbar, Dundee, Dunfermline, Dunse, Edinburgh, Fareham, Forfar, Gainsborough, Galashiels, Glamis, Glasgow, Greenock, Haddington, Halifax, Hawick, Huddersfield, Hull, Inverary, Inverness, Jedburgh, Kelso, Kerriemuir, Kilmarnock, Lauder, Leamington, Leeds, Lincoln, Lintrathen, Liverpool, Lochce, London, Louth, Lymington, Lynn, Manchester, Margate, Melrose, Monifeith, Montrose, Newark, Newburgh, Newcastle, Norwich, Nottingham, Oxford, Paisley, Peterborough, Portsmouth, Reading, Rugby, Saffron Walden, Salisbury, Scarborough, Sheffield, Southampton, Spalding, Stamford, Stirling, Sunderland, Taunton, Tillicoultry, Wakefield, Warwick, Worcester, Wrexham, York.

—SECTION IV. *Literature of Phrenology*.—1. Chronological list of phrenological works—2. List of anti-phrenological works—3. List of phrenological writers—4. List of anti-phrenological writers—5. List of Persons giving Testimonials in recommendation of the Science, to Mr George Combe and Lord Glenelg as Secretary of State for the Colonies—6. Opinions of anti-phrenologists.

—SECTION V. *Statistical Estimates and Summaries*.—1. Phrenological Societies—2. Phrenologists, Anti-phrenologists, &c.—3. Phrenological Works—4. Authors and Essayists—5. Museums—6. Lectures—7. Tabular Views.

—SUPPLEMENT.—Phrenology and the Royal Society of London—Phrenology and Metaphysics—State of Phrenology in Aberdeen, Edinburgh, Exeter, Stirling, and Taunton—Addi-

tional works—Caldwell's Thoughts on Physical Education—Noble's Essay on estimating Character—Writers on Phrenology—Additional Testimonials to Mr Combe."

The first section, on the progress of Phrenology, is written in an excellent spirit. It is throughout courteous in language, but bold, vigorous, and uncompromising in thought. Mr Watson does justice upon the individuals and editors of periodical publications who have opposed Phrenology; he bestows ample commendation on its friends and supporters, yet tells them their faults with freedom and independence. Of ourselves he speaks in the following terms:—"In 1823 appeared the first number of the Phrenological Journal, a quarterly periodical, which has been regularly published from that time, and still continues to be so. It forms an useful record of the progress of Phrenology, now extending to nine volumes, and including several most valuable essays, with a considerable number of elementary papers, cases, and remarkable facts. It has never been very popular, even among the phrenologists, and has been much complained of as representing the feelings and ideas of its conductors rather than those of the phrenological public; but it seems to be now meeting with a more cordial reception. If not always satisfying individual minds, its readers should remember that such a journal, started in support of an unpopular science, must have entailed on its conductors much personal trouble and pecuniary loss; in return for which they could have only a very remote prospect of remuneration in any way, except what arises from the consciousness of labouring for the diffusion of truth and the good of their fellow-beings. The conductors, however, call upon phrenologists to support their journal; and they complain that it is not done sufficiently. Surely this is unreasonable. The public will support a journal adapted to its wants; and if the editors of the Phrenological Journal do not adapt theirs to the public, the fault rests with themselves, and so also should its consequences.

"It would be easy to specify particular objections to the plan and mode of conducting this journal; but whatever objections may be urged against it, we should not forget to look to the opposite side of the scales. Though not perfect, there is much to approve; and the three following propositions may be unhesitatingly advanced in defence of the journal:—First, that it has been highly serviceable to the cause of Phrenology; secondly, that every phrenologist will find advantage from reading it; and, thirdly, that in philosophical spirit and moral excellence, a single volume of it vastly outweighs the united value of every page and paragraph written *against* Phrenology." The following paragraph appears as a foot-note to these remarks. "I have many times felt called upon to defend this periodical from the censures of others, sometimes made with small consideration and scarcely in

the spirit of justice ; but I have also occasionally been disposed to join in the disapprobation. This induces me to take the liberty of here suggesting to the editors a fair experimental test of their labours. Let them call on the regular subscribers to their journal to send such objections and suggestions as seem called for, free of expense, legibly written, and limited to the compass of a common letter-sheet. Let these be compared, and let due attention be paid to the opinions most numerously supported. Several of the objectors are not subscribers, nor even regular readers."

We present these remarks as a fair specimen of the spirit in which Mr Watson's work is written, which we greatly admire. Being placed on our defence, we beg leave to say a few words in answer to his charges against us. This Journal has been guilty "of representing the feelings and ideas of its conductors rather than those of the phrenological public," for the following reasons:—First, That we have had no means of becoming acquainted with the feelings of the phrenological public. The phrenologists, as Mr Watson has shewn, are scattered in small numbers all over the kingdom ; they are in general unknown to us personally, and they do not address us by letters, so that we are absolutely unable to represent their feelings in our pages. The instances are few in which we have rejected communications, and these always on grounds which appeared to ourselves to involve the interests of the science, and not of our own peculiar opinions merely. Secondly, No honest man can write except from his own feelings and ideas ; and, as the conductors of the Journal are not numerous, it was impossible for us to do otherwise than represent our own minds in its pages : but, with all deference, may it not be asked whether, seeing that we have studied Phrenology for a longer period, and more diligently, than most of its supporters, we have not some right to consider ourselves as somewhat in advance of the generality ? In not extinguishing our own beams to give place to the scintillations of other minds, we have been moved more by the abstract love of light than by that of shining. Whenever valuable papers have been presented to us by such correspondents, for instance, as Mr Watson himself, we have received those with joy. Thirdly, We have conducted this Journal from the first to the present number, not only without pecuniary remuneration to any extent, but at a sacrifice of several hundreds of pounds ; and we challenge a comparison with any journal in the kingdom conducted in a similar way, if such exists, both for solidity and variety of information, and devotion to the cause which it supports. We acknowledge that we have no right to complain of the phrenological public for not supporting us better, because we might at our own pleasure have ceased our labours ; but in

point of fact we have complained very little, and for several years not at all. The Journal has of late defrayed its own expenses, and its circulation has increased. We believe the chief cause of its depression for the first seven or eight years of its existence to have been sheer apathy to the cause in the public generally, and that in proportion to the diffusion of the science, and the estimation in which it is held, will be our means of giving variety and vigour to this publication, and the degree in which its circulation will hereafter be extended.

We are happy that Mr Watson has stated the objections to which we have now replied; and, as a proof that we are anxious to secure the advantages of popularity, we cordially invite all our "regular subscribers to send such objections and suggestions as seem called for, *free of expense*, legibly written, and limited to the compass of a common letter sheet;" and we promise to give them due attention. But we shall pay no attention to any communications which have not real signatures, and which do not come from regular subscribers.

Mr Watson states several other charges against the Edinburgh phrenologists, which our limits prevent us from advertng to at present. He does them ample justice, however, in his general remarks, and we leave his censures and praises to the judgment of his readers. He introduces some excellent remarks on a class whom he calls "non-phrenologists," as distinguished from phrenologists and anti-phrenologists, and among whom he places Professor Alison and Dr Abercrombie of Edinburgh. His observations on them are particularly good:—"In 1831, Dr Alison, Professor of Physiology in the University of Edinburgh, published an elementary work, 'Outlines of Physiology,' intended chiefly for his own students. In this work the author enters somewhat into detail touching the *metaphysical* opinions of Brown, Reid, and Stewart, yet dismisses the *physiological* claims of Phrenology rather unceremoniously, and in a manner scarcely reconcilable with full candour. If Dr Alison thinks that the metaphysical opinions of speculative writers are more useful to students of medicine, than are those drawn by phrenologists directly from physical observations on the nervous system, we utterly differ from him; and we freely tell him that a considerable number of students disregard or despise this part of his course of lectures, who much value all the rest of the course.* Personal experience and direct inquiry among the attending students combine to authorize this assertion. In reference to the phrenological mode of observing the connexion between mental peculiarities and particular parts of the brain, Dr Alison writes, 'That observations made in this way, by dif-

* "The annual course of lectures, delivered by Dr Alison, consisted of a more extended exposition based on the facts and opinions in the Outlines."

ferent competent observers, have given, in different instances, very discordant results.' He also sums up this, 'On the whole, the only point ascertained is, the general appropriation of the great mass of the hemispheres of the brain proper, to the acts of thought; which is by no means peculiar to, and does not derive its chief support from, the writings of phrenologists,' &c. Looking to the first of these sentences, phrenologists are entitled to ask from Dr Alison, who are his 'competent observers,' and what are their 'observations?' Can the author prove this direct statement? If so, Phrenology is mere delusion. We surmise that Dr Alison has mistaken either the competence of the observers or the bearing of their observations against phrenological doctrines. Turning to the second sentence, phrenologists will first ask whether the author professes an acquaintance with the facts and principles of Phrenology, in a sufficient degree to authorize his opinion as to what is the 'only point ascertained?' Secondly, they will suggest that the concluding portion of this very sentence gives them an indirect reply in the negative. How, we ask, could 'the general appropriation of the great mass of the hemispheres of the brain proper to the acts of thought' be 'peculiar to phrenologists,' or 'derive its chief support from the writings of phrenologists,' seeing that their whole science is founded on the fact, first ascertained by Gall, of the '*general mass* of the hemispheres *not* being appropriated to the acts of thought?' If Dr Alison has ever looked at the positions of the cerebral organs, as shewn on a marked bust,—and we think he would not write against Phrenology without first doing this,—could he fail to see that less than one quarter of the brain is held by the phrenologists to be 'appropriated' to the acts of thought; all the rest being 'appropriated' to the propensities and sentiments,—to the *feelings*, not to *thought*?

"It is not without some unpleasant emotion that any allusion is here made to this author's objections to Phrenology. Dr Alison is one of the very few persons for whom almost every body feels esteem and respect; and this universal respect confers so much influence upon what is written or taught by him, that phrenologists are forced in self-defence to call for some definite proof to bear out such an entire rejection of all their labours, and the more so on account of Dr Alison's opinions being annually received by some hundreds of students. As a professor appointed to teach physiology to students of medicine, and handsomely remunerated for so doing, by the fees of the students,—which fees they are compelled to pay,—can Dr Alison remain neuter in justice to others? Is he not under a moral obligation to make himself well acquainted with the only physiology of the brain yet brought forward on positive data, before

telling—and in order that he may be able to tell—his students whether they are to receive or to reject it? Suppose we assume that Dr Alison has really given small attention to the subject. In such case, ought he not to have admitted the circumstance, instead of virtually rejecting that about which he knew so little? On the other hand, let us look at the question in the assumption that proper attention has been paid to the facts and claims of Phrenology. Evidence, *pro* or *con*, must have been procured in this case. Which was obtained? Dr Alison now stands between the anti-phrenologists and the non-phrenologists, by which latter expression are intended all those who neglect or disregard the subject. With the former, we surmise, he will scarcely wish to join his name; and sorry should we feel to do it for him. At the same time we respectfully suggest that he ought not to fall into the ranks of the non-phrenologists. His position as a teacher of professional students morally deprives him of the option of neutrality, which his own feelings would probably give preference to.

“The last example is one of utter neglect of Phrenology in a work, every page of which ought to have borne the decided and avowed impress of phrenological doctrines, if those doctrines be admitted as truths. We allude to Abercrombie's *Inquiries concerning the Intellectual Powers*, published in 1830. The author is a medical practitioner of much repute in Edinburgh, personally acquainted with phrenologists, and of course well aware of the claims of Phrenology to be considered an exposition of the laws of mind and the functions of the brain. Nevertheless he disregards it, and has published an intimation, that ‘we do not know whether impressions made upon the nervous fabric connected with the organs of sense, are conveyed to the brain, or whether the mind perceives them directly as they are made upon the organs of sense.’ (*Phren. Journal*, vol. viii. p. 49.) This and another work, by the same author, ‘*On the Moral Powers*,’ have gone through several editions. The two facts, first, of a good medical practitioner writing the above passage in the present day, and, secondly, of a work written by one entertaining such crude notions of mental philosophy, as evidently appertain to this author, being extensively read by the ladies of Edinburgh,—the city where Combe resides, writes, and lectures!—will be held quite extraordinary fifty years hence, if the circumstances be not then utterly forgotten.”

Mr Watson does justice on Sir William Hamilton, Dr Stone, and other antiphrenologists. The following remark on Dr Stone appears to us to express very correctly the real character of this individual's opposition. One of Mr Watson's correspondents having remarked that he “does not believe any antiphrenologist has a sufficient knowledge of the doctrines to enable him to

“speak upon them,” Mr W. says, “I am disposed to think that Dr Stone, author of the *Evidences against Phrenology*, is an example of sufficient knowledge; but he views the discussion as a kind of litigation, where each must say what he can for his own side; reality being a secondary consideration, if considered at all.”

The statistical information contained in Mr Watson's work is extensive, authentic, valuable, and extremely interesting: among other results brought out is the fact, that medical members of phrenological societies are a sixth part of the whole. Altogether it is a production which displays great industry, taste, judgment, and independence; and we earnestly recommend it to the notice of our readers. It is the best book for circulating among the uninformed, with a view to the extension of the science, that at present exists. In another respect it is calculated to be of much service. It will suggest to the conductors of periodical works, that they cannot much longer sneer with impunity at doctrines which they do not understand. This, in fact, seems to have been one of the chief inducements which led to the publication of Mr Watson's book; he calls loudly on the phrenologists to withdraw their support from writers who are guilty of such immorality. There are instances, he says, within his knowledge, where the editors of periodicals have already lost subscribers and advertisements, in consequence of the dishonesty and scurrility of their antiphrenological effusions. “It is too much,” says he, “to expect that continued attacks will be quietly allowed in the present day. Indeed, we confidently anticipate that periodicals continuing their attempts to vilify phrenology and phrenologists will very soon be thrown out of circulation; and we maintain that phrenologists are performing a public good and duty, in striving to arrest the circulation of such works as mislead readers from a truth so extremely important to the best interests of the human race.”

MISCELLANEOUS NOTICES.

LONDON.—A new society for the cultivation of Phrenology, and in general of every branch of knowledge which has a bearing on human nature, has lately been constituted. Its title is the Anthropological Society. “The fundamental principle is, that it is desirable to establish a society of persons believing in the *fundamental principles of Phrenology*, for the purpose of investigating the laws of the Creator in reference to the condition of man. The *objects* are the investigation and the application of the principles of Phrenology in the elucidation of the laws of the Creator, as evidenced in the animal, intellectual, moral, and religious condition of man. The *means* by which these objects are to be realized are, 1st, the establishment of a library; of a collection of casts; and by the *reading of essays*. The *meetings* of the society take place on the 1st and 3d Thursdays of every month; on the 4th Thursday the society gives a *Conversation*, to which ladies are admitted. Subscriptions L.1 a-year; which may be paid at yearly periods, or at quarterly or half-yearly instal-

ments, in advance." The regulations may be obtained from the secretary, Dr Epps, 89 Great Russell Street, Bloomsbury. The organ of this society is a cheap monthly periodical, now in its twelfth number, called "The Christian Physician and Anthropological Magazine," in which Dr Epps is the principal writer. The eleventh number (for July) contains an address delivered at the first meeting, on 23d June, by Mr John Isaac Hawkins, president. The Anthropological Society, says he, proposes to study, not the natural laws of the Creator only, but likewise the revealed; "while it grasps all that Phrenology affords as commonly understood, it seeks also to be illuminated by the light of Divine Revelation, and thus endeavours to obtain a view of the internal condition of man, as well as the external: the spiritual as well as the natural powers of man are thus seen to be the legitimate objects of our inquiry." In the twelfth number of the Magazine, Mr Hawkins has published an essay "On making use of certain natural fixed Points and Distances in the human Head, in order to assist in estimating the phrenological Development." Perhaps he goes rather too much into minutiae; but his suggestions deserve the attentive consideration of all who take an interest in the improvement of practical Phrenology. That this department of the science has not yet attained perfection is admitted on all hands, and we are always well pleased to see it under investigation.

BATH.—Attention has been recently directed to this interesting, though much contested science, by two Lectures delivered at the Literary Institution by Dr Cowan. The object of the lecturer was to illustrate some of the fundamental dogmas of Phrenology, and to fix the attention upon the powerful nature of the evidence on which they are founded. *The dependence of mind on organisation* was enforced, by the analogy of all other known functions, by the mental peculiarities of nations and individuals—the variations in the same mind at different periods of life—the effects of disease, stimulants, fatigue, education, &c., all of which phenomena could only be satisfactorily explained by admitting organization to be the instrument of the mental faculties. That the brain was the particular organ of the mind, was supported by numerous considerations—by analogy, by comparative anatomy, effects of direct violence, the phenomena of madness, &c.; and that it was not a single organ performing a single function, but a congeries of organs, each charged with its special manifestation, Dr C. rendered highly probable, by referring to the present state of our knowledge relative to the nervous system in general—by the fact of mind being peculiar in its mode of activity in different individuals, by the successive development of the mental powers, by the relief consequent on change of occupation, by the phenomena of monomania, dreaming, the effect of local injuries, and a variety of other facts which we have not space to particularise, all favouring the conclusion that the brain is an assemblage of organs, each executing an independent function. The axiom, so essential to a phrenologist, that the size of the brain, *ceteris paribus*, is an index of mental power, was illustrated at considerable length. The analogy of the organic and inorganic world, the external senses, the various methods adopted by philosophers of all ages to estimate the intelligence of different animals when compared with man, the size of individual and national heads, with many other examples, were successively adduced in support of an opinion, which, if true, simply proves the brain to accord with an otherwise universal and indisputable law, and that it is not an exception, as the antiphrenologists would have it to be. The necessity of not making size the only criterion, and the importance of distinguishing between the size of the whole brain and individual parts, were pointed out. Dr C. insisted upon the circumstance, that Phrenology was a science of fact, not of theory, that it alone had followed the Baconian method of strict observation, and that the evidence of its truth was far greater than that of any metaphysical hypothesis whatever; and, in conclusion, he warmly defended Phrenology from the charges of fatalism and materialism, regarding it as eminently in accordance with the best interests of morality and religion. Both lectures were numerous and most respectably attended; the subject appeared to excite considerable interest, and we

have reason to believe that a Bath Phrenological Society is now forming, for the purpose of practically studying and illustrating a science, which, if true, is incalculably important, and, if false, is, by the very nature of its pretensions, worthy of refutation. We shall be glad to see both the friends and opponents of Phrenology uniting, for the promotion of this object, satisfied that the war of fact, if honourably conducted, always terminates in the establishment of truth."—*Bath Herald*, 7th May 1836.

MANCHESTER.—We mentioned in our last number the lectures of Mr Simpson on Moral and Educational Philosophy in Manchester. The course was most successful, and has given a decided impulse to Phrenology in that great town. Mr Simpson was honoured with a public dinner by the inhabitants—Thomas Wyse, Esq. M.P., in the chair. The formation of an Educational Association is contemplated.

BARNARD CASTLE.—A class for the investigation and study of the science of Phrenology has lately been formed in connexion with the Mechanics' Institution, at Barnard Castle, in the county of Durham. It bids fair for prosperity, about twenty-six persons having already joined it. The esteemed president of the Mechanics' Institution, H. T. M. Witham, Esq. of Lartington Hall, presented to the class three copies of Combe's Constitution of Man; and subsequently twelve additional copies of the same work, and twelve copies of Macnish's Introduction to Phrenology, have been received into the class. The members appear to be in earnest in their study of the science. Two public lectures have already been delivered, one by M. Kirtley, Esq. surgeon, "on the anatomy of the brain and skull, as connected with Phrenology;" and the other by H. T. M. Witham, Esq. "on the evidence and uses of the science." A third, "on the principles of Phrenology, and its relations to Christianity," has already been announced. We extract the following notice of Mr Witham's lecture from the *York Herald* of 6th August 1836:—"On the evening of Monday last, a lecture was delivered in the Hall of the Mechanics' Institution, Barnard Castle, by H. T. M. Witham, Esq. of Lartington Hall, on the truth, reasonableness, and use of Phrenology. The lecturer brought before his audience, in a clear and forcible manner, the evidences of the science, and demonstrated the great advantages which would arise from it, in giving man a knowledge of himself, directing him to the practice of virtue, and shewing to society the true principles of education, and the proper mode of treatment for the criminal and insane. At the conclusion of the lecture Mr W. was warmly eulogized by William Godley, a mechanic, who, in seconding a vote of thanks, called the attention of the audience to the great pains taken by Mr Witham to instruct the poor, and to put within their reach the means of moral and intellectual improvement. Indeed the conduct of Mr Witham in this respect is well worthy the attention of the British aristocracy. Instead of employing his time, his talents, and his wealth, in the idle and frivolous diversions of life, he is using these means for the furtherance of science and virtue amongst the middle and lower classes of society."

WARRINGTON.—A course of lectures on Phrenology was delivered here in July and August by Mr D. G. Goyder. The subject was treated chiefly in connexion with biography and history.

FORFAR.—A Phrenological Society has existed in Forfar for nearly twelve months, consisting of upwards of fifty members, and including most of the members of the legal and medical professions, as well as merchants, manufacturers, and tradesmen. It has been conducted with much spirit, and has called forth a considerable number of original essays, read by the members at their ordinary meetings. Its first session was concluded by two public lectures, delivered in the Town Hall on the 23d and 30th June, by W. A. F. Browne, Esq. Medical Superintendent of the Montrose Lunatic Asylum,—an able and zealous phrenologist. In his first lecture, Mr Browne treated of the anatomical and physiological proofs of the science, which he brought forward in

the most striking and luminous manner: and they altogether presented a body of evidence which must have astonished those who have not yet studied this most interesting and important subject. Mr Browne was peculiarly happy in describing the gradual enlargement of the organs of motion and sensation from mere filaments to a complicated nervous system and brain,—in tracing this from the zoophytes, through worms, insects, reptiles, fishes, birds, and quadrupeds, up to man; and in demonstrating the additional functions and capacities with which this enlargement is uniformly and progressively accompanied. This part of the subject has not hitherto been fully treated of by Scottish phrenologists; and Mr Browne's masterly sketch of it was, in consequence, more peculiarly interesting to those acquainted only with these authors. In his second lecture, Mr Browne took the more popular view of the subject,—namely, the evidences drawn from observation, or, in other words, from the manifestations of talents and dispositions in individuals, as compared with the development of the cranium—being the indications and evidences that led Dr Gall to the discovery of the science, and which have since been so wonderfully confirmed by physiological investigations. This branch of his discourse was clear and convincing; and, in particular, his description and discrimination of the great classes of animal, moral, and intellectual faculties, was distinguished alike for ease, precision, and brevity. As it was impossible to explain each faculty separately, Mr Browne concluded with an analysis of Self-esteem and Benevolence, as a specimen of the phrenological mode of illustrating the special faculties; and this analysis was at the same time ingenious, forcible, and eloquent. In short, Mr Browne furnished to his audience an intellectual feast, which was highly relished at the time, and which will not soon be forgotten. He was listened to by a numerous and respectable assembly with an eager and profound attention, too absorbing to admit of noisy demonstrations during the lectures, but which at the conclusion was expressed by general and hearty applause. It ought not to be omitted to be stated, that Mr Browne would accept of no personal remuneration.—*Dundee Advertiser*, 8th July 1836.

ABERDEEN.—We learn that a Mechanics' Phrenological Society is about to be established in Aberdeen. This is the first indication that Phrenology has found an entrance there, and we have no doubt that the large-headed Aberdonians will speedily appreciate its value. There are ten individuals who have resolved to associate themselves for the purpose of studying Phrenology, and making a practical application of it in their individual and social capacities. "We are making," says one of them, "all the inquiries we can, preliminarily to forming the society on a proper basis, and have a reasonable prospect of a steady, probably a rapid, increase."

PARIS.—The following paragraph, translated from a Paris journal, has been widely circulated in the English and Scotch newspapers:—"The *Académie de Médecine* has been called upon to decide the important question of Phrenology. The discussion occupied four sittings. Dr Broussais, who is at the head of the phrenological school, maintained the principles which he had laid down in his lectures. M. Gueneau de Mussy had to sum up the arguments on both sides, and in conclusion gave an opinion that the system ought not at present to be adopted. The Academy, concurring in this opinion, deferred its decision till the system was established upon more solid bases." We have not yet been able to obtain the full particulars of the discussion here alluded to; but the concluding discourse of M. de Mussy has been translated from the *Journal des Débats* of the 27th June 1836, and published in the *Edinburgh Advertiser* of 12th August. From the introductory remarks we learn that "the ardent defenders of Phrenology, with M. Broussais at their head, met their opponents, too numerous to be named, at three or four successive sittings." It appears that the decision of the members of the *Académie* (which, we understand, is an institution similar to the Edinburgh College of Physicians), rested on the facts and arguments brought before them on the occasions alluded to; in which case it is obvious, that, even supposing these gentlemen to have been unprejudiced and uncommitted against Phrenology, the

materials for forming a sound judgment respecting its merits must have been very insufficient. To test the truth of Phrenology, a long course of observation and study is requisite, and if the members of the *Academie* drew their conclusions merely from these debates, we commend the philosophical caution of their verdict. With what ability the battle was fought on either side we are ignorant; but so far as may be gathered from M. de Mussy's speech, the hostile arguments which weighed with the members of the *Academie*, were extremely feeble. His first reason from withholding assent from Phrenology is, that the size of the cerebellum is not a measure of its power, when animals of different species are compared with each other. This objection is fully replied to by Dr Caldwell in our last number. The phrenological doctrine is that size, *ceteris paribus*, is the measure of power; M. de Mussy, however, holds that size alone ought to be regarded, and that quality of brain and difference of species can have no influence. His second reason is, that herbivorous animals are now found to possess the organ of Destructiveness, though it was formerly supposed to be peculiar to the carnivorous; and that hence it has been necessary to change the destination of the organ from that of murder. Thirdly, if Fieschi's dispositions were determined by his organization, he was not a free agent, and ought not to have been condemned: such a doctrine "destroys all liberty, all morality, all hope, and leaves nothing but the fatalism of the stone which falls." Lastly, the unity of personal identity, is a fatal objection to the doctrine of a plurality of cerebral organs, inasmuch as this unity seems to imply an action of the whole brain, rather than an isolated action of its different parts. The inconclusiveness of these objections must be so obvious to our well-informed readers, that any reply to them would be superfluous, even if we had space for its insertion. The speech of M. de Mussy has given great delight to some of the Edinburgh antiphrenologists. Instead, however, of being alarmed by the decision of the *Academie*, we are surprised to find it so favourable as it is. Formerly, Phrenology was a "piece of thorough quackery from beginning to end;" but now we find the possibility of its truth admitted—with this explanation, that in the opinion of an assembly of physicians, many of them of mature age, and who have never devoted particular attention to the subject, it is not yet satisfactorily established. Would any similar body of physicians in Europe have come to a more favourable conclusion?

NEW ORLEANS.—In May last a course of lectures on Phrenology was delivered by invitation, in the Lyceum of this thriving city, by Dr Caldwell of Lexington, Ky. The interest excited was very great, and the audience included the intellectual *élite* of New Orleans. At the close of the concluding lecture, a vote of thanks was unanimously voted to Dr Caldwell, "for his highly intellectual and interesting exposition of the philosophy of the human mind;" and another resolution, extremely complimentary to him as an individual, was likewise passed. The lecturer having previously left the room before the meeting was constituted, it was farther resolved, "That a committee be appointed to wait on Dr Caldwell, and present him with a copy of the above resolutions; whereupon the chairman appointed His Excellency Governor White, Dr Luzenburg, and Major Mountfourt; and, on motion, the Chairman was added to said committee." Dr Caldwell lectured by invitation also in Natchez; and Phrenology is spreading rapidly in the great valley of the West. Here, however, as in other parts of the United States, quackery seems to be on the alert, and is profiting by the credulity of the ignorant.

DUNDEE AND MONTROSE LUNATIC ASYLUMS.—We have been much gratified by perusing the Reports of the Directors of these asylums, for the year ending 31st May 1836. The most cheering results continue to follow the employment of the patients in useful labour; and the zeal of the superintendents for the improvement of the arrangements of the institutions appears indefatigable. "Every experiment," says the Dundee report, "has proved the soundness of the principle, that vigorous exercise is a remedial measure of the utmost efficacy and importance." "A common observer will not de-

tect in many of the patients any symptoms of insanity; the labourer, in respect of his dress, habits, and hours of work, is not to be distinguished from those of the adjoining fields; and, in the constancy of his occupation, and in the interest he feels in his pursuits, he himself seems sometimes to forget the connexion that subsists between him and the establishment." The patients whose rank or previous habits incapacitate them for labour, receive amusement in the bowling-green, or at the backgammon-board. The ladies sew and cultivate flowers. Music is indulged in; several newspapers are read in the institution; and subscriptions are paid to public libraries. Of 134 patients in the asylum, only four are under any restraint. In the Report on the Montrose asylum, it is mentioned by Mr Browne, that "the practicability and utility of a regular system of employment have been fully and fairly tested during the past year. The object was not merely to amuse, but to cure; not merely to occupy minds which, under other less favourable circumstances, would be benumbed by lethargy or concentrated upon their real or imaginary sorrows, but to create new and pleasant objects of thought—to excite desires and interests which are connected with a tranquil and healthy condition of mind—in short, to offer temptations to the lunatic to co-operate in his own restoration. So successfully have these objects been accomplished, that while formerly the complaint in conducting such establishments was, that no means could be devised to induce the unfortunate inmates to engage in active exertions of any kind, our complaint now is, that those willing and able to work far exceed our opportunities of gratifying their desire." Mr Browne strongly recommends that the employments in which insane patients engage should not be of a frivolous or useless nature, so as to suggest to them its real object; and that, moreover, each patient should receive wages for his labour. The experiment of giving them pecuniary remuneration has been tried with decided success; and small sums have been set apart from the earnings of patients, and presented to them on their discharge. Both at Dundee and Montrose, public worship continues to be found highly beneficial.

We are now in possession of the second volume of Dr Vimont's *Traité de Phrénologie, Humaine et Comparée*, but have not yet found leisure to give it more than a cursory perusal. Its contents are of great interest. Dr Vimont, we observe, charges the Brussels edition with numerous inaccuracies.

The following works have been received:—

Internal Evidences of Christianity, deduced from Phrenology. By John Epps, M. D. 2d edition. London: E. Palmer. 1837. 12mo, pp. 108.

A Popular View of the Progress of Philosophy among the Ancients. By Joshua Toulmin Smith, of Lincoln's Inn, Esq. London: Longman and Co. 1836. 12mo, pp. 454. (A notice of this has been prepared, and will appear in our next).

Remarks suggested by the Reading of Mr Taylor's Letter to the Lord Provost, Magistrates, and Council of the City of Edinburgh, offering himself as a Candidate for the vacant Professorship of Logic in the University. Edinburgh: James Stillie. 1836. 8vo, pp. 16. (This pamphlet contains an excellent reply to the charge that Phrenology leads to Materialism).

The Philosophy of Phrenology simplified. Glasgow: W. R. M'Phun. 1836. 18mo.

The suggestions of our correspondent Mr George Johnston, as to a reduction of the price of this Journal, and its more frequent appearance, have been more than once under consideration; but we have not thought it expedient to give them effect.

This Number contains two extra sheets, or 32 pages. The press of matter is so great that even this addition was hardly sufficient. In our last Number 24 pages *extra limites* were given. We trust that an increase of circulation will enable us permanently to enlarge the Journal. At present we cannot afford to increase its size except on rare occasions.

EDINBURGH, 1st September 1836.

THE
PHRENOLOGICAL JOURNAL.

No. L.

ARTICLE I.

VIEW OF THE PRESENT STATE OF KNOWLEDGE RESPECT-
ING THE ORGAN OF ALIMENTIVENESS.

THE publication of a very interesting paper on Alimentiveness by Messrs Ombros and Théodore Pentelithe, in a late Number of the Journal of the Phrenological Society of Paris,* has suggested to us the utility of laying before our readers a view of the knowledge which has now been accumulated respecting that faculty.

It is well known that Dr Hoppe of Copenhagen was the first to point out a cerebral organ of the propensity to feed; although the existence of such an organ had previously been conjectured by Gall and Spurzheim. The views of Dr Hoppe are contained in two papers, published in this Journal, vol. ii. pp. 70, 484. The first, in which he argues for the existence of the propensity in question, and conjectures that its organ is situated at the base of the brain, was written in December 1823; and the second, wherein he points out the exact position of the organ, is dated the 28th December 1824. In the former of these papers he expresses the opinion, that, besides the nerves of the stomach and palate, of which alone he conceives the sensations of hunger and thirst to be affections, there must be also "an organ in the brains of animals for the instinct of nutrition (taking of nourishment) for the preservation of life, which incites us to the sensual enjoyments of the palate, and the activity of which is *independent* of hunger and thirst." "How," he asks, "should the mere sense of hunger, more than any other disagreeable or painful sensation, make the animal desire food, the necessity of such not being known to him by experience? This could only be effected by *instinct*; because either an instinct, i. e. the immediate impulse of an organ, or else experience and reflection, are the

* *Journ. de la Soc. Phrén. de Paris*, Oct. 1835, p. 406. The title of the article is, "De l'Alimentivité, ou du Sens de la Faim et de la Soif, comme Faculté cérébrale primitive, par MM. Ombros et Théodore Pentelithe."

causes of all actions. We observe," says he, "that the chicken is no sooner out of the egg than it picks the grain that lies on the ground, and the new-born babe sucks the nipple. Is this to be explained without the supposition of an organ analogous to that which makes the duckling immediately plunge into the water, or makes the kitten bite the first mouse it meets with?" "When the child, even enjoying perfect health, sucks till the stomach is filled, in a literal sense of the word, it surely feels no hunger or thirst; yet, if laid to the breast, it will continue sucking, even sometimes having thrown off the last draught from over-filling." "If nothing but hunger and thirst impelled man to take food, he would, when satiated, have no appetite for meat and drink; yet we every day observe people that cannot resist the temptation of surfeiting themselves both with meat and drink, though they know it to be noxious, and others again that never are tempted to gluttony." But the two proofs of his opinion which Dr Hoppe considers the most weighty are, 1st, that we recollect a taste we once had upon the tongue, and, as an organ of an external sense cannot be supposed to have memory, this recollection must take place in an organ in the brain; and, 2dly, that when we have no appetite, it may be roused by the sight of delicious viands, nay, by merely thinking of them; and even in sleep we may gormandize. Such manifestations, he argues, can arise from nothing but a cerebral organ, which, says he, "only from desire, sets to work the instruments for its gratification, and saliva is gathered in the mouth." The conjectures offered by Dr Hoppe in this first paper, regarding the situation of the organ, are the following: "It would be passing difficult, on account of their situation, to pursue the method of Dr Gall in observing the interior parts of the middle lobes of the brain; but the similarity of their structure with that of the rest of the cerebral organs, justifies the opinion that these, like the other parts of the brain, are also organs. Their low situation in the base of the skull would, by analogy to that of the other organs, lead us to suppose that they were organs for the very lowest animal instincts; and, from a like reason, we would suppose a relationship between these and those which are situated nearest to them, namely, the organs of Destructiveness. Indeed, were we to determine, *a priori*, a place for the organs of nutrition, it would just be this part of the brain. Finally, I think I have remarked, in several individuals addicted to gluttony and ebriosity, a considerable breadth of the skull about the base, indicating a fulness of the brain at this part. Nevertheless, observations made in this general way must always be very doubtful; certainty is to be acquired only by dissections, and by comparing the formation of these parts in different species of animals and in different ages, as it is supposed that the organ of nutrition is in the new-born animal comparatively

most advanced." Mr Combe mentions in his *System*, that, in lecturing on Phrenology, he had for some years previously to the publication of Dr Hoppe's paper, pointed out, as the probable situation of the organ in question, a part of the middle lobe of the human brain corresponding to the convolution in the brain of the sheep from which the olfactory nerve rises; but that he had not determined a specific part of the convolution, or the external sign of the organ in man. In Dr Hoppe's second communication to this Journal, written a year after the first, these desiderata were supplied. "Regarding the organ for taking nourishment," says he, "I have been led to think, since I wrote last, that the place where its different degrees of development are manifested in the living body, is in the *fossa zygomatica*, exactly under the organ of *Acquisitiveness*, and before that of *Destructiveness*. Before I had thought at all of Phrenology, I was struck with the remarkable breadth of the face or head of a friend of mine, caused, not by prominent cheek-bones, as in some varieties of mankind, but more toward the ears, by the great convexity of the zygomatic arch. Knowing that this individual was exceedingly fond of good living, and that, even in spite of a very powerful intellect, and propensities moderate in almost every other respect, he was prone to indulge too freely in the joys of the table, I afterwards thought that this form of the head and tendency of the mind might bear a nearer relation to each other than had at first occurred to me; and in some other persons, notoriously fond of good eating and drinking, I found a confirmation of my suppositions. This prominence of the bony arch, I think, must be an absolute consequence of the part of the cranium lying under the temporal muscle being pushed outwards, and diminishing, in that direction, the space of the *fossa*. Besides this greater convexity of the arch, the part also of the skull situated immediately above it, under the organ of *Acquisitiveness*, will in this case be observed to be more full and protruding. The breadth of head produced in this way can by no means be mistaken for a mere prominent cheek-bone, nor for the organs of *Acquisitiveness*, or *Destructiveness*, or *Constructiveness*, situated higher, behind, and in front of it. Having found the said parts in some persons much compressed, in others less so, and, as I think, the disposition of mind always proportionate to it, and not yet having met with any exceptions, I cannot but hold my opinion to be true."

Dr Hoppe considers that the organ of Alimentiveness is likewise the cerebral organ of the sense of taste. "That the sensation of taste," says he, "only passes through the nerves, and is perceived in a part of the brain, is a supposition, I think, sufficiently proved. Now, it appears to me as highly probable, and by analogy agreeing with other experiences, that it is one and the

same organ which *tastes* (viz. distinguishes and enjoys), and *incites* us to taste, or, in other terms, to take food and drink. This, according to my opinion, is the organ of appetite for food, and consequently it may also be named the organ of Taste (gustus), and stands in the same relation to this of the external senses as the organ of Tune to the sense of Hearing." (*Phren. Jour.* iv. 308.)

Dr Crook of London mentions that several years before the publication of Dr Hoppe's papers he himself had arrived at similar conclusions with respect to this faculty, and the position of its organ. "Three persons," says he, "with whom I had become acquainted in the year 1819, first led me to suspect that a portion of the brain situated near the front of the ear (next to Destructiveness) was connected with the pleasures of the festive board. From that time to the end of 1822 above a thousand observations were made; as they tended to confirm this view, several phrenological friends were informed of the result. From 1823, I no longer doubted that the anterior portion of the middle lobe was a distinct organ, and that its primary use was the discrimination and enjoyment of meats and drink. It was difficult, however, to hit the fundamental power. The situation of the organ, under the zygomatic process and the temporal muscle, frequently precluded the possibility of accurate observation. But, notwithstanding, well marked cases, both of a positive and a negative kind, were investigated. These conclusions were embodied, and read to the Phrenological Society of London on the 8th of April 1825. Two months before, though it was not known in London, a letter had been received in Edinburgh from Dr Hoppe of Copenhagen, giving the same portions of the brain to the sensations of hunger and thirst. The coincidence was felt to be remarkable, and by myself particularly so, as I had, in 1821, conceived a similar idea, but discarded it upon considering the dependence of these feelings upon the stomach and tongue."

Dr Crook, misled, no doubt, by the erroneous title ("On the Conjectural Organs of Hunger and Thirst") prefixed to Dr Hoppe's communications in *The Phrenological Journal*, errs in supposing him to consider those sensations as connected with the organ of Alimentiveness. On the contrary, he and Dr Crook concur in rejecting this idea, and in there locating the sense of taste.

The cerebral part to which Dr Hoppe adverts, was formerly included by Dr Spurzheim within the limits of Destructiveness; but in Dr Gall's busts and plates, that organ was not carried so far forward, and the function of the part in question was marked as unascertained. Dr Spurzheim latterly coincided in the views of Dr Hoppe, in so far as to regard the organ as that of "the propensity or instinct to feed;" but he dissented from the

motion that it produces delicacy and nicety of taste. "All," says he, "concurs to prove, that the above mentioned portion of the brain is the organ of the instinctive part of nutrition, or of the desire to feed. It exists not only in carnivorous, but also in herbivorous animals. The goose, turkey, ostrich, kangaroo, beaver, eagle, horse, &c. &c. have a middle lobe as well as the duck, eagle, pelican, tiger, lion, dog, &c. The desire to feed is common to all animals, and the carnivorous animals require the organ of Destructiveness in addition to that of the instinct to feed." He remarks, as a corroborative circumstance, that the anterior convolutions of the middle lobes are developed from the earliest age, sooner than many other parts, and, both in man and the lower animals, are proportionally larger in the young than in adults.* "This propensity," he adds, "is particularly assisted by the smell, and the olfactory nerve is, in all animals, in the most intimate communication with the middle lobes; so much so, that, in the ox, sheep, horse, dog, fox, hare, rabbit, &c. the internal part of the middle lobes seems to be almost a mere continuation of the olfactory nerve. In man, also, the external and greater root of the olfactory nerve is in connexion with the anterior convolutions of the middle lobes."†

The faculty is termed Gustativeness by Dr Crook; but Dr Spurzheim confines the sense of taste to the gustatory nerve, regarding the propensity to feed as the whole extent of the function of Alimentiveness. "This view," says Dr Crook, "approximates so closely to my own, that it is only in very extraordinary cases that the manifestations of the one can be clearly distinguished from those of the other; but one decided case I met with in 1827, in which no part of the *cerebrum* existed, yet, during the eight days' life of this imperfectly formed creature, there had been incessant craving for food, which it took in very considerable quantity, but without any apparent discrimination as to taste or flavour. To admit the instinct to eat to be the primitive power, would subvert the first principle of physiology,—the inseparable connexion between organ and function."

If this case was really as here reported, it would unquestion-

* "Every body," says Dr Vimont, "knows how generally children are chargeable with being gluttons. Desirous to satisfy myself how far this tendency, in them so unquestionable, coincided with the development of the organ of Alimentiveness, I examined forty-eight heads of young children, from five to twelve years of age; and I can affirm that in all of them, without exception, this region was very apparent. I possess in my collection eleven skulls of children from two to seven years of age; in all, the part of the skull over the organ of Alimentiveness is marked in a striking manner. As might be expected, however, the development is not equally great in them all."—*Traité de Phrénologie*, tome ii. p. 174.

† Phrenology, p. 143-4. Boston, 1832.

ably form a serious obstacle to the admission of the view taken by Dr Spurzheim; but so many facts of an opposite tendency have been observed, that it is not unreasonable to suspect, that, in a case so anomalous, and observed by a non-medical phrenologist, the organ may have been confounded with some other part at the base of the skull. While the details of the dissection remain unpublished, we must be pardoned for hesitating to lay any stress upon the case.

Messrs Ombros and Pentelithe mention, in their recently published essay, that they have not seen the papers of Dr Hoppe, of the contents of which, however, they appear to have obtained some knowledge through the works of Mr Combe. The views to which their observations have led them, are thus far identical with those of the Danish physician, that they consider the function of the organ to be both the propensity to feed and the sense of taste; but they go still farther than he, and believe it to be likewise the seat of the sensations of hunger and thirst. That the stomach and fauces are not the organs of these sensations, is proved by a multitude of facts; although it is correct enough to refer them to those parts to this extent, that a certain condition of the stomach and throat tends to excite them. "But, in reality," to use the words of Dr Combe, "the sensations themselves, like all other mental affections and emotions, have their seat in the brain, to which a sense of the condition of the stomach is conveyed through the medium of the nerves. In this respect, Appetite resembles the senses of Seeing, Hearing, and Feeling; and no greater difficulty attends the explanation of the one than of the others. Thus, the cause which excites the sensation of colour, is certain rays of light striking upon the nerve of the eye; and the cause which excites the perception of sound, is the atmospherical vibrations striking upon the nerve of the ear; but the sensations themselves take place in the brain, to which, as the organ of the mind, the respective impressions are conveyed. In like manner, the cause which excites appetite is an impression made on the nerves of the stomach; but the feeling itself is experienced in the brain, to which that impression is conveyed. Accordingly, just as in health no sound is ever heard except when the external vibrating atmosphere has actually impressed the ear, and no colour is perceived unless an object be presented to the eye,—so is appetite never felt, except where, from want of food, the stomach is in that state which forms the proper stimulus to its nerves, and where the communication between it and the brain is left free and unobstructed." "If the correctness of the preceding explanation of the sensation of hunger," continues Dr Combe, "be thought to stand in need of confirmation, I would refer to the very conclusive experiments by Brachet of Lyons, as

setting the question entirely at rest. Brachet starved a dog for twenty-four hours, till it became ravenously hungry, after which he divided the nerves which convey to the brain a sense of the condition of the stomach. He then placed food within its reach, but the animal, which a moment before was impatient to be fed, went and lay quietly down, as if hunger had never been experienced. When meat was brought close to it, it began to eat; and, apparently from having no longer any consciousness of the state of its stomach—whether it was full or empty—it continued to eat till both it and the gullet were inordinately distended. In this, however, the dog was evidently impelled solely by the gratification of the sense of taste; for on removing the food at the beginning of the experiment to the distance of even a few inches, it looked on with indifference, and made no attempt either to follow the dish or to prevent its removal.”*

Hunger and thirst being thus unquestionably cerebral affections, the next point to be inquired into is, With what portion of the brain are these affections connected? Does the organ of the propensity to feed exercise this function, or must it be referred to a separate part of the brain? Dr Hoppe, we have seen, thinks hunger and thirst altogether different from “the desire of food which we call appetite;” the latter he ascribes to the organ of Alimentiveness, while the former is referred by him (we think at variance with sound physiological principle) to the nerves of the stomach and palate. And he puts the question, “How should the mere sense of hunger, more than any other disagreeable or painful sensation, make the animal desire food, the necessity of such not being known to him by experience?” It must be granted, that no mere sensation can excite this desire; but there is a striking fact which appears to us to shew unequivocally that the propensity to feed, and the affections called hunger and thirst, are modes of action of this single faculty; to-wit, that *hunger or thirst and the desire to eat or drink always go together*—just as courage is the unfailing concomitant of the propensity to oppose, and as anger is universally attended by the propensity to inflict suffering.† Dr Hoppe indeed seems to call in question the uniform co-existence of hunger and the desire to eat; and remarks, that “if nothing but hunger and thirst impelled man to take food, he would, when satiated, have no appetite for meat and drink; yet we every day observe people that cannot resist the temptation of surfeiting themselves both with meat and drink.” But the answer to this clearly is, that there is a great difference between having

* Physiology of Digestion, &c. 2d edition, pp. 12-14.

† Previously to the publication of the paper of M.M. Ombros and Theodore Pentelithe, we had been led, by the above consideration, to the conclusion at which they have arrived by a different route. The subject is adverted to in our last number, p. 159.

a well-filled stomach and having no sense of hunger—the latter, in consequence of derangement of the stomach, or too great activity of the cerebral organ, frequently continuing in a greater or less degree of strength, although a large quantity of aliment has been consumed. This will be made apparent by the cases to be presently noticed; and even without reference to these, it seems incontestable, that whether or not the desire to eat may exist unaccompanied by hunger, hunger is never experienced apart from the desire to eat. As well might we ask, “How should the sentiment of courage, more than any other sentiment, make an animal desire to oppose?” as put the question just quoted from Dr Hoppe, as an argument against the singleness of the faculty giving origin to hunger and the propensity to eat. The sentiment or affection of courage, it is true, does not prompt to opposition, but the propensity which is always conjoined with it does; and, in like manner, although the affection of hunger gives birth to no desire, yet the propensity without the active presence of which that affection never exists, may and does lead the animal to do what is requisite for its removal.

In cases of disease of the organ of Alimentiveness, the symptom is violent hunger or thirst, and insatiable craving for food. An interesting case of this sort, observed in the Royal Infirmary of Edinburgh, is recorded in our seventh volume, page 64. The patient had awaked at five o'clock on the morning of the day of his admission, “craving for food,” as his sister related; and had been “eating continually” from that time till sent to the Infirmary about noon. His stomach was greatly distended by the quantity of food he had swallowed, yet he still complained that he was dying of hunger. At this time, and till next morning, he was delirious; but subsequently he became dull. Twenty-four hours after his admission, when roused by loud or repeated questions, he answered imperfectly but to the point, and frequently muttered, “Hunger, hunger, hunger, it's hunger!” He complained of pain at the exact locality of the organ of Alimentiveness, and there alone.*

In the *Journal de la Société Phrénologique de Paris*, vol. ii.

* The reporter of this case has appended to it his observations in regard to the points to be attended to in estimating the size of the organ; which, from its situation, is a matter of difficulty. “It is nearly parallel,” says he, “to the zygomatic arch, which is often rendered prominent by it when large; but the distance of the arch from the proper parietes of the skull being variable, this is not a certain guide. The temporal muscle opposes an obstacle, but may itself be used as a means of removing the difficulty in part. When the organ is larger than its neighbours, the lower part of the temporal muscle is pushed outwards, making it appear as if lying on a pyramidal instead of a vertical-sided cranium, the base of the pyramid being downwards; when small, the reverse occurs. If the organ be very large, it will affect the socket of the eye-ball, pushing the latter up and forward, not as in Language down and forward. When both are large, (at least in one instance I have seen this), the eye looks imprisoned by a fulness extending almost round it.”

No. 5, the case of a woman called Denise, detailed in the *Annales de la Médecine Physiologique* (Oct. 1832), is taken notice of, as furnishing a curious example of insatiable appetite for food. In infancy she exhausted the milk of all her nurses, and ate four times more than other children of the same age. At school she devoured the bread of all the scholars; and, in the Salpêtrière, it was found impossible to satisfy her habitual appetite with less than eight or ten pounds of bread daily. Nevertheless, she there experienced, two or three times a month, violent attacks of hunger (*grandes faims*), during which she devoured twenty-four pounds of bread. If, during these fits, any obstacle was opposed to the gratification of her imperious desire, she became so furious, that she used to bite her clothes, and even hands, and did not recover her reason till hunger was completely satisfied. Being one day in the kitchen of a rich family, when a dinner-party was expected, she devoured, in a very few minutes, the soup intended for twenty guests, along with twelve pounds of bread. On another occasion, she drank all the coffee prepared for seventy-five of her companions in the Salpêtrière. Her skull is stated to be small; the region of the propensities predominating. The organ of Alimentiveness is said to be large, and in all probability it was subject to disease.

Such instances, however incredible they may at first sight appear, are by no means of rare occurrence; and many of them are recorded in medical publications. In the *Philosophical Transactions*, vol. xliii. p. 366, Dr Mortimer has related the case of a boy of twelve years, by whom the feeling of inanition was so strongly experienced, that, like the Parisian girl, he used to gnaw his own flesh if food was withheld. During his waking hours he was continually eating. His food consisted of bread, meat, beer, water, milk, butter, cheese, sugar, treacle, puddings, pies, fruits, broths, and potatoes; of which he swallowed, in six consecutive days, 384 pounds 8 ounces avoirdupois, being on an average 64 pounds daily. This morbid condition lasted for a year. Another well known case is that of a Frenchman named Tarrare, reported by Drs Percy and Laurent, partly from their own observation, in the *Dictionnaire des Sciences Médicales*. When a lad, he once devoured a large basket of apples which some person had promised to pay for; and on another occasion a quantity of flints, corks, and similar substances. Being frequently seized with colic, he used to apply at the Hôtel-Dieu in Paris, but was no sooner relieved than he resumed his former practices, and was once detected on the point of swallowing the surgeon's watch, with its chain and seals. At the age of seventeen, when he weighed an hundred pounds, he would consume twenty-five pounds of beef daily. At the commencement of the revolutionary war he entered the army, and devoured his com-

rades' rations as long as better supplies from other sources rendered them of little value. But when at length his comrades stood in need of them themselves, he was nearly famished, fell ill, and was admitted into the *hôpital ambulant* at Sultzer. He there ate not only a quadruple allowance, the broken food of the other patients, and the waste of the kitchen, but would swallow the poultices and any thing else that came in his way. He devoured, it is said, so many dogs and cats alive, that they fled at the sight of him. Large snakes he despatched with the greatest facility, and he once gobbled up in a few moments all the dinner that was provided for fifteen German labourers, namely, four bowls of curd, and two enormous dishes of dough boiled in water with salt and fat. At another time he disposed of thirty pounds of raw liver and lights in presence of some officers, who, finding that he could swallow a large wooden lancet-case, took the partitions out, enclosed a letter in it, made him swallow it, and then sent him with it to a French colonel in the hands of the enemy. An answer was sent back in the same way; but having been well drubbed by the enemy, he refused any further secret service, and was readmitted into the hospital to be cured of his hunger. Being no longer a novelty, he excited less interest, and found it necessary to have recourse to sheep-folds, poultry yards, private kitchens, slaughter-houses, and bye-places, where he had to contend with dogs and wolves for their filthy food. He was detected drinking blood that had been taken from his fellow-patients, and eating bodies in the dead-house. The disappearance of a young child excited strong suspicions against him, and he was at length chased away, and unheard of for four years, at the end of which time he applied at the Hospice de Versailles, wasted, no longer voracious, and labouring under a purulent diarrhoea, which soon carried him off, at the age of twenty-six.* Another Frenchman, Charles Domery, when a prisoner at Liverpool, consumed, in one day, four pounds of cow's udder and ten pounds of beef, with two pounds of tallow candles and five bottles of porter; and although allowed the daily rations of ten men, he was still not satisfied. Dr Combe states, that he once attended a patient who was afflicted with a similar inordinate craving, and whose only pleasure was in eating.† In these cases there seems to have been idiopathic disease of Alimentiveness, although no direct evidence of the fact is possessed. Disease of the stomach may no doubt preternaturally excite, by sympathy, a sound organ in the brain; but we are not aware that without cerebral disease, or a very great development

* The above account of Tarrare is abridged from one of Dr Elliotson's notes to Blumenbach's Physiology, 4th edition, p. 304. Dr E. refers to the Dict. des Sciences Med., Art. *Homophagie*.

† Physiology of Digestion, p. 32.

of the cerebral organ, the violence of the propensity is ever so inordinate. Dr Monro records a case of voracity in which the brain was found after death to be extensively diseased, while no morbid appearance whatever was found in the stomach or intestines. The appetite of the patient (whom he saw at the Edinburgh Dispensary) was so voracious, that he was led to inquire particularly into her history. When about eighteen years of age, she suddenly became giddy, and was seized with nausea and vomiting, and fluttering about the heart. "Her appetite," says he, "became inordinate. Her usual food was oatmeal porridge, and of this the mother said she used to take about six English pints per day, and a bottle of porter; but from what her neighbours stated, and a disposition on her part to conceal the quantity, I am apt to suspect that the mother's account is rather under the truth. She generally rejected a part of her food, and as soon as the vomiting ceased, her desire for food returned so violently, that she was unable to resist it. A spasmodic affection of the pharynx often prevented the food from reaching the stomach; she was then tortured with the most intolerable hunger." The cause of her death seems to have been apoplexy. "I was present at the dissection of the body. The dura mater was of a dark purple colour, and the pia mater and arachnoid coat were much thickened, and adhered to each other very firmly; and the medullary substance of the brain was of the colour of liver. The stomach and intestines were examined with the most scrupulous attention, and were found to be in every respect in a healthy condition."*

The following cases, which throw additional light on the subject, are related by Messrs Ombros and Pentelithe:—

"One of us," they say, "attended a man labouring under chronic peritonitis, and who was tormented with a continual desire of eating. Spurzheim, who was taken to see the patient when on his way to Lyons, thought he perceived in the temples a greater heat than in the rest of the head. Leeches were applied, and the hunger was immediately allayed; but the patient left the hospital before any definite result could be attained.

"A woman, of small stature and spare habit of body, and whose appetite had always been strong, got a violent fright. Instantly, as she herself stated, she felt the blood carried to her head, and the rest of her body chilled. From that time she was subject to severe pains in the temples; but what tormented her most was a desire to eat, which nothing could satisfy.

"An old man, of the *Hospice de la Charité*, and who had long been remarkable for drunkenness, died of gastro-hepatitis.

* Monro's *Morbid Anatomy of the Gullet, Stomach, and Intestines*, 2d edit. p. 271.—See another case where morbid voracity evidently proceeded from a cerebral cause, in our 9th vol. p. 460.

On dissection, we found a perfectly distinct erosion of the two convolutions of Alimentiveness on the left side.

"A man, aged fifty, died of chronic hepatitis, brought on by the excessive use of spirituous liquors. We found in him the same erosion. These two observations are highly interesting with reference to the study of the seat of the faculty in question."*

The same gentlemen state that in the collection of M. Duchêne of Givors, there are four skulls, presenting a remarkable development in the situation of Alimentiveness. "One is that of a public crier, who died of pulmonary consumption, at the age of sixty-one. He was notoriously addicted to drunkenness, and spent all his money upon intoxicating liquors. His temples were parallel as far forward as the suture, and although they were flat, the head was remarkably broad in that region. The second skull is that of a boy of thirteen years, who died of gastro-enteritis. He was always hungry, ate much and with avidity, and loved his meat above all things. His relations said that the voracity of the child was inconceivable, and maintained that his disease was the result of several attacks of indigestion, which he had brought on by his gluttony. Here the temporal bone is not as in the previous case flat, but swells outwards considerably, so as greatly to increase the diameter of the skull in the region of the temples. The third skull is that of a juggler, who died, at the age of forty-six, of chronic gastro-enteritis, with abscess of the liver, produced by excess in eating and drinking. Whenever he had money, it was spent in getting drunk with his companions. At the hospital he complained that he was dying of hunger, and used to purchase the rations of his neighbours, in spite of the prohibition of his medical attendant, and although he knew that he was doing himself harm. He was observed to rise frequently during the night, in order to steal and eat the food of the other patients. In this case the development is enormous, *la côte manifeste*, and the prominences so great, that when the skull is viewed in front, they are seen projecting laterally beyond the orbits. The fourth skull belonged to a woman of a small constitution, who died, at the age of fifty-two, of a chronic catarrh. She had very seldom any appetite, drank nothing but water, and was usually satisfied with a little milk as her daily allowance of food. Her mother said she had never seen a child so moderate an eater. Her digestion was often performed with difficulty, and sometimes, notwithstanding the little nourishment which she took, she was troubled with pain and a sense of oppression in the epigastric region. Contrasted with the other skulls, her's is remarkably narrow. Not only are the temples deep,

* Jour. de la Soc. Phrén. de Paris, Oct. 1835, p. 421.

and the temporal bones flat, but, in proceeding forward, they converge so rapidly that if prolonged they would meet at a point less than two inches before the nasal spine." Messrs Ombros and Pentelithe add, that the portrait of Charles XII. of Sweden, who is stated by Voltaire to have on one occasion passed five days without food, for the purpose of trying how long he could endure hunger, is remarkable for the same peculiarity.

Assuming, then, that the organ of Alimentiveness has for its function the sensations of hunger and thirst, and the desire to do what is necessary for the removal of those sensations, namely, to eat and drink, we proceed to consider a very interesting, though difficult, branch of the subject—that relating to the modifications which the faculty undergoes, so as to make us desire certain *kinds* of food in particular, according to the wants of the system at the time. From possessing this discriminative power, Alimentiveness is perhaps the only one of our faculties to which the appellation *instinct* can be correctly applied. It is evident, in the first place, that the desire of liquid aliment arises at one time, and that of solid aliment at another. This, we conceive, takes place independently of the disagreeable sensations felt in one case at the back of the mouth, and in the other at the stomach; for the faculty seems to act in these different modes, previously to experience of the efficacy of liquid and solid food, respectively, to allay the sensations—and besides, desire to eat or to drink is often felt, without any local sensation whatever. The fact seems to be, that when the body stands in need of supplies of a certain kind, the organ of Alimentiveness is so affected or modified, sympathetically, as to produce desire of the necessary food. In warm climates, for example, where vegetable diet is most suitable to the condition of the body, and where much animal food is injurious, the people desire to eat vegetables, and regard animal food with something approaching to disgust. The doctrines of Pythagoras, as Messrs Ombros and Pentelithe observe, had their origin in India. In the Arctic Regions, on the other hand, pure animal food, even of the fattest description, is the most beneficial; and we accordingly find that the Esquimaux and Greenlanders devour blubber, oil, and candles with avidity, but spit out a piece of biscuit with loathing. Nature, it is worthy of remark, has in these cases most harmoniously adapted the human constitution to external circumstances; for no vegetable food exists in the Frozen Regions, while in the Torrid Zone the vegetation is luxuriant. In warm climates less food is necessary than in cold, and the appetite of the natives is weaker. The same phenomena are observable in our own country at different seasons of the year. In winter we incline to eat more than during the dog-

days of summer, and the craving for cool and acid fruits becomes strong at the very time when Nature has bountifully supplied them. Vegetable food is more salubrious in summer than in winter, and every one knows that the natural inclination for it is then greatest. We require also less food in summer than in winter, and, as Hippocrates long since remarked, we are better able to sustain abstinence in warm weather than in cold. Among the lower animals Alimentiveness is in like manner modified to suit the constitution of each. In the carnivora it is a propensity to eat flesh, in the herbivora to eat vegetables; the silk-worm is impelled to devour the leaves of the mulberry tree, and thrives on them alone. Certain birds are led by instinct to swallow small pebbles necessary for digestion; and so on.

The modifications of Alimentiveness in various diseases of man are analogous to those above referred to. In fever, animal food is extremely prejudicial, and the patient accordingly loathes it. In scurvy, there is a strong craving for acid vegetables, which, as is well known, are the most efficacious remedy of that disease. The captivating appearance of the vegetation of the Ladrone Islands to Anson's crew, after they had been "beating for joyless months the gloomy wave," and suffering under the attacks of scurvy, occasioned principally by the want of vegetable food, probably arose in no small degree from the prospect of gratifying such a craving; for subsequent navigators have not found in Tinian that paradise which Anson represented it to be. Physicians are in the habit of taking the patient's wishes as, to a certain extent, a safe criterion whether wine ought to be administered. "Such," say Messrs Ombros and Pentelithe, "was the origin of medicine. After the remark had been made that acids, for which a certain patient had a strong craving, proved useful to him, another, in the same condition, but in whom perhaps the perceptions of Alimentiveness were less acute, would be advised to make use of them. Hence it follows, that in many cases there is among men a medicine that is purely instinctive; the same, in fact, which exists among the lower animals. Dogs eat dog-grass in order to produce vomiting; cats drink oil during the pains of parturition; the ichneumon of India, which is the determined foe of reptiles, knows, when it has eaten them, to eat a root which the Indians themselves make use of as an antidote against the poison; and one of us remembers to have seen the bear Martin, in the Royal Menagerie, some time after he had fractured his thigh, break the ice of his trough, in order to steep in it his injured limb. It is the collection of all these facts which constitutes the principles of the healing art:

*"Artem experientia fecit,
Naturâ monstrata viam."*

The same writers go on to observe that "the modifications which Alimentiveness undergoes during pregnancy are worthy

of remark. It then manifests a multitude of desires which are termed the longings of pregnant women. Some of these, it is true, are bizarre and inexplicable; but others of them are but means resorted to by nature to introduce into the system the materials necessary for the formation of the new being. They exist in animals as well as in the human species: it is a real longing of the pregnant female which leads birds to eat earthy substances at the time of laying eggs, doubtless in order to furnish the calcareous substances necessary for the formation of the shell." Morbid desire to eat substances not usually taken as food, and sometimes of a disgusting kind, is not uncommon, and is to be regarded as a symptom of disease of the organ of Alimentiveness. Messrs Ombros and Pentelithe remark, however, that, "in some cases, this may be still an impulse of nature to provide the body with what is defective; as is seen, for example, in rickety children, who eat earth or lime, as if to furnish to the osseous system the calcareous salts necessary to give it the solidity of which it stands in need." *

We grant that in civilized life the instinct of Alimentiveness is not unerring; but cultivated man is very different from man guided by impulse. Acting so frequently from knowledge and intellectual perception, we neglect our instincts, which become languid and lose their natural force. There seems to be every reason for supposing *a priori* that savages are greatly superior to civilized men in the power of discriminating what is proper to be eaten, either as food or as medicine; but having at present no recollection of seeing the fact stated by travellers, we do not venture to affirm any thing positively on the subject.

When the system is exhausted by bodily or mental labour, or is otherwise depressed and uncomfortable, a want of stimulus is felt, and Alimentiveness, excited sympathetically, produces a craving for wine or spirits. And the larger the organ, the more easily will it be so excited. Such a craving, after frequent indulgence, is apt to become spontaneous and habitual. The love of intoxicating liquors has been from the first referred to this organ; for Dr Hoppe, in his original communication to our Journal, says, "I think I have remarked in several individuals addicted to gluttony and ebriosity, a considerable breadth of the skull about the base." It was by Dr

* Dr Vimont (tom. ii. p. 176), quotes from the *Archives de Médecine*, March 1826, the case of a man who was extremely fond of putrid animal substances, but whose appetite, though depraved, was not voracious; this manifestation, he supposes, ought to be attributed to derangement of the organ of Alimentiveness—"l'organe qui préside au choix des alimens." Perhaps, however, it may be questioned whether in this instance, and some of those given above, the phenomena are not rather attributable to derangement of the sense of taste.

M. M. Ombros and Pentelithe think that the organ of Alimentiveness is the seat of hydrophobia (p. 417); a conclusion which receives countenance from a case which they mention, and from another reported by M. David Richard in the same number of the French Journal, p. 490.

Caldwell, however, that the attention of phrenologists was first strongly drawn to this mode of action of Alimentiveness, particularly when it becomes morbid. Dr Caldwell has unfolded his views at considerable length in a paper entitled, "Thoughts on the Pathology, Prevention, and Treatment of Intemperance, as a Form of Mental Derangement;" printed in *The Transylvania Journal of Medicine* for July, August, and September 1832, p. 309-350. He there teaches, "that the burning desire of the drunkard for spirituous drink is a morbid affection of the brain, consisting in preternatural excitement and action; I mean of that portion of the brain which constitutes the organ of *alimentation*—in which is seated the appetite for food and drink. That organ, I repeat, is in a state of preternatural excitement and morbid vigour, from previous indulgence in high exercise. The condition of it, therefore, amounts to as genuine a disease as inflammation of the eye, the lungs, or the stomach. And it may, and often does, rise to the pitch of *insanity*—I mean insanity as to that point; a disease that may be called *monomania temulenta*, drunken monomania. When more general and inveterate, it turns to open "*mania a potu*." "Respecting the ungovernable force of the sot's appetency for spirituous drink, I do not speak unadvisedly or by conjecture; but from observation, and information derived from the most authentic sources. It is but a few days since I asked one of those unhappy mortals, in a solemn tone and rather rebuking manner, why he did not refrain from intoxicating liquor, when he daily felt and witnessed its ruinous effects on himself and his family? With a gush of tears (for his sensibility is not yet extinct), he replied to this effect. 'Sir, I cannot refrain. I have within me a fiery craving, which would consume me, if I did not extinguish it, at times, with liquor. When it comes on me in full force, I should go mad, and drown myself to cool it, if I did not drink.'"

"If I am not mistaken, then, the nature of drunkenness, and the source of the fatal appetite that leads to it, are not, in general, correctly understood. The consequence is, that unsuitable means are employed to remove them, and the effort fails. Drunkenness and its appetite are evils resulting no less from an organic cause than an inflamed eye or a lacerated muscle. And if they be removed at all, it must be in conformity to organic laws. The moral and intellectual means of advice, remonstrance, warning, and denunciation, avail but little, if any more, in reforming from intemperance, than they would in the cure of a bilious fever, or the reduction of a dislocated bone. Yet they are the only measures (at least I know of no others) that are employed in the process. And their universal failure, which only shews their unfitness and misapplication, induces a belief that the complaint is incurable. Hence the limited number of reformatations from drunkenness when the habit is formed, and

the unsuccessful issue of most attempts to prevent it when its approach is first discovered. In the former case, men are warned, under fearful penalties, to abandon sottishness, and, in the latter, not to commence it; while, in each case, the intense appetency for ardent spirits remains untouched. As well may the culprit on the rack be told not to agonize, or those suffering from phrenitis not to rave. And as soon shall the one obey, as the other. The reason is plain. In each case an attempt is made to remove evils by causes that have no affinity to them. An effort to set fire to gunpowder by pouring water on it, would scarcely be more preposterous." (Pp. 329-331.)

Dr Caldwell subsequently proceeds to consider the remedy which the principles of physiology point out. "Am I asked," says he, "how drunkenness, then, is to be cured, and the tormenting propensity which leads to it eradicated? I answer, by the same means which are found successful in the treatment of other forms of insanity, where the cerebral excitement is preternaturally high. These are, seclusion and tranquillity, bleeding, puking, purging, cold water, and low diet. In this prescription I am serious; and if it be opportunely adopted and resolutely persevered in, I freely peril my reputation on its success. As a test of its correctness, give me the entire command of any one in a fit of intoxication, and I will speedily cure him of it. I will shorten his paroxysm by more than the half of its usual duration, and his recovery from it shall be much more perfect than in former cases. This I will do by bleeding him, until he shall faint or come very near it, puking him severely with tartar emetic, and bathing his head, neck, breast, and extremities, in cold water.* This practice will immediately cool the fervour, and abate the inordinate action of his brain; and a subsequent sleep will set all things right. He will awake, moreover, without the headach, dulness, and nausea, which so generally succeed a heavy debauch. Nor will he feel the same fervid desire to return to the bottle, and brutalize himself again, that he would do, had the fit been suffered to go off by degrees, without the use of means to shorten it. Let this process be repeated as often as he shall relapse into intoxication, and if he be not far gone in the evil, he will soon be reclaimed. Facts occur daily, to prove the efficacy of a free evacuation of the stomach in shortening a paroxysm of drunkenness. The drunkard who vomits freely, recovers from his fit in a much shorter time, than he who does not. This arises, not so much from the mere emptying of the stomach of

* We consider this advice as too unguarded. There are many such cases in which copious bleeding would be followed by fatal results. In principle, Dr Caldwell is perfectly correct, and the strong enunciation in the text will not mislead any experienced physician. Still it would have been better had his expressions been less unqualified.

the liquor swallowed, as from the effect produced sympathetically on the brain, by the emetic process. The excessive excitement of the brain is moderated by it, and the equilibrium of its action and faculties restored. If interrogated on the subject, the Resident Physician of the Kentucky Lunatic Asylum will state, that he finds, in the institution he superintends, no difficulty in curing *mania a potu* by the treatment here directed. Under this head I shall only add, that it is during the stage of high excitement of a paroxysm of drunkenness, that affusions of cold water can be beneficially employed. During the stage of torpor, when the temperature of the skin is rather below than above the standard of health, they are inadmissible. The other curative measures recommended are always useful." (Pp. 382-3.) Dr Caldwell adds, that, when the disease is allowed to proceed for a considerable time unchecked, it becomes organic and incurable. He does not seem, however, to have demonstrated its seat by actual dissection. But what he has in this respect left undone, some of the cases of Messrs Ombros and Pentelithe go far to accomplish. In two confirmed drunkards they found distinct erosion of one of the organs of Alimentiveness; and in other two cases—those of the public crier and the juggler—there was a large development of the organ, accompanied by a violent love of intoxicating liquor.

Dr Vimont takes the same view: "In my opinion," says he, "gluttony and ebriosity result from the extreme development of the organ of Alimentiveness, or its extreme activity, or most frequently from these two conditions united. It must be added, however, that I have seen several persons who presented rather a remarkable development of that organ, without being exactly gluttons; but all, without exception, attached great importance to the choice and preparation of their food, or were pretty fond of spirituous liquors." "This organ," he says, "is enormously developed on the skulls of two women, which form part of my collection. One of them was presented to me by the late Dr Legallois; the other belonged to a woman who died in the prison of Caen. Both individuals had an immoderate passion for spirituous liquors." Dr Vimont goes on to say: "A fact of which I was far from thinking at first, but which I have found confirmed by a multitude of observations, is, that this organ is generally well developed in persons who are very fond of smoking. As no one has made this remark before me, I invite phrenologists to see whether new observations shall confirm those which I have made." (P. 173-4.) Messrs Ombros and Pentelithe, without alluding to Dr Vimont's work (which was published in the same year with their essay, but whether before or after

SPECIMEN OF ANTIPHRENOLOGICAL FACTS.

it we are ignorant), likewise refer the love of smoking to Alimentiveness.

Whether this organ, besides giving rise to the sensations of hunger and thirst and the desire to feed, is also the seat of the sense of taste, is a question on which we entertain considerable doubt. According to Dr Crook, this is the sole function of the organ; Dr Hoppe conjoins with it the propensity to feed; while Dr Spurzheim considers the organ to have no function but the last. Messrs Ombros and Pentelithe take the same view with Dr Hoppe on this point; but neither he nor they adduce any reasons in favour of their opinion. Dr Hoppe indeed says, that analogy leads us to suppose that it is the same organ which tastes and incites to taste; and in this we entirely concur with him: but to us the desire to eat appears to be fundamentally different from the desire to taste, and in all probability the function of a different organ. Supposing this to be the fact, there must be a close sympathy between the two organs. That taste is most acute when hunger is keen, every one must admit; and that it is blunt when the appetite is satiated, seems to be equally undeniable: but can it be averred that when hunger and the desire to eat are perfectly null, the sense of taste is likewise dormant? To this question, we suspect, an affirmative answer is impossible; and until some better grounds for the opinion discussed are brought forward, we must continue to withhold from it our assent.

R. C.

ARTICLE II.

SPECIMEN OF ANTIPHRENOLOGICAL FACTS.—CORRESPONDENCE BETWEEN MR G. COMBE AND MR DAVID DUNN, TEACHER AT NEW LANARK.

1. *Mr Combe to Mr Dunn.*

23 CHARLOTTE SQUARE,
EDINBURGH, 16th Sept. 1836.

SIR,—A friend of mine who has just returned from New Lanark informs me, that, in alluding to Phrenology at his visit, you told him and two English gentlemen who were with him, that “Mr Combe had some years ago in that very place (the New Lanark School-room) completely failed, and almost ruined a young man by the bad character he had given him; that the person had in consequence been obliged to leave the place, but, instead of turning out as Mr Combe had predicted, he had proved a most industrious workman, was now possessed of property, and occasionally visited his former friends, when they

frequently had some fun at Mr Combe's prediction. Our guide (says my informant) corroborated the teacher's statement."

You will at once perceive that such a statement as this made by you and the guide to the numerous strangers who visit New Lanark, must be highly injurious to me as an individual, as well as to Phrenology, which I advocate; and as I have not the slightest conception at present to what circumstances, time, or individual, you allude, I am under the necessity of requesting an answer to the following questions.

1. When did I give the character imputed to me?
2. What did I say? Specify this particularly.
3. What is the name, occupation, and present age and residence of the individual alluded to?
4. Who were present when I made the statement?

I beg that you will give as correct and circumstantial a report as possible, as the matter demands a very serious investigation. I am, Sir, your most obedient servant,

GEO. COMBE.

2. Mr Dunn to Mr Combe.

NEW LANARK, 17th September 1836.

SIR,—I have by this day's post received your's, and hereby return an answer, but must first apologize for my imprudent conduct in taking notice of an affair which I confess lay entirely out of my way.

The circumstance alluded to in your letter, to the best of my recollection, took place when I was a boy, and consequently cannot exactly state the precise time. A gentleman, along with Mr Owen, visited the school here, but whether this gentleman was Mr Combe or not I cannot say. He examined a number of the children, and among the rest a J—— G—— N———, whom he affirmed to have a very bad disposition. This boy was accordingly taken notice of, not by his employers, but by his acquaintances, and the circumstance recollected; but *observe, he left the works of his own accord*, and not in CONSEQUENCE of his *character* from the *individual*, and is now employed as a cotton-spinner in Glasgow, and occasionally visits his mother here, and at these times makes a very respectable appearance; and with regard to him or any of his friends having *fun* at the prediction, *if I said so*, and imputed that prediction to Mr Combe, I had no authority for so saying, and, in consequence, I apologize and ask your pardon.

Your informant, I trust, will do me the honour to state, that I only said a gentleman along with Mr Owen said so and so regarding a boy, and this gentleman was suspected to be Mr Combe.

I am sorry that I have been the cause of any uneasiness to a gentleman of your respectability, but trust you will look over it, and I shall be more guarded for the future; I will also take notice of it to the person who conducts strangers through the works. I trust you will accept of this as an apology; and I am yours most respectfully,

DAVID DUNN.

P. S.—You may shew this letter to any of your friends, and I trust you will, in kindness, return a few lines stating your forgiveness, as I am very uneasy about the matter. I am yours truly,

D. DUNN.

3. Mr William Fraser, Printer, Edinburgh, to Mr Dunn.

EDINBURGH, 19th September 1836.

SIR,—I have just been favoured with the sight of a letter written by you to Mr Combe, regarding a conversation which lately took place, when you were so kind as explain to two gentlemen and myself some of the means of instruction employed in the school at New Lanark. On that occasion I ventured to inquire if you had ever studied Phrenology; when you immediately replied that you had not, except that you were then engaged in reading Mr Combe's Constitution of Man, which work you thought highly of; but as to the subject of Phrenology itself, you had no confidence in it. You then detailed the story referred to in your letter, and most decidedly named Mr Combe as the phrenologist who gave the opinion of Mr N——— being endowed with so bad a disposition, as would render him a very dangerous member of society; and farther, that this character having got abroad among the work-people, he was so harassed that he was in consequence obliged to leave the mills. You also mentioned, that when Mr N——— now visited the works, there was often laughter or merriment at the failure of Mr Combe's prediction.

I think it proper to put these facts in writing, and as they were not mentioned to myself alone, but first before the person who shews the works, and a young friend who was along with me, and again repeated before two gentlemen, who, at our second visit to the school, had joined us, I am quite confident of the accuracy of my statement. You also added that you knew a teacher who pretended to be a phrenologist, and who was in the practice of taking fees for teaching arithmetic, but who at same time gave himself very little trouble in doing so, if he thought any of his pupils not sufficiently endowed with the organ of Number.

Both the above circumstances you certainly mentioned to shew the dangerous tendency, in your opinion, of Phrenology;

and I was somewhat gratified when you stated that your ideas of it were somewhat changed by the few explanations which I then gave, and that you would endeavour to study it more fully. This I hope you will still do, and I shall fulfil my promise to send some of the books as soon as possible. I am your very obedient servant,
(Signed) W. FRASER.

4. *Mr Combe to Mr Dunn.*

EDINBURGH, 19th September 1836.

SIR,—The prefixed letter was shewn to me by Mr Fraser, and I requested him to allow me to write to you a few lines on the back of it, to save you postage. Your letter of the 17th of September is satisfactory, in so far as it disavows any bad intention on your part; but it is painful to me to learn that a person of your respectability has been in the practice of making statements to the numerous visitors who frequent New Lanark so highly discreditable and injurious to me, without a shadow of foundation; for, to the best of my knowledge and belief, the whole circumstances detailed by you have no foundation whatever in so far as I am concerned. I make it a rule never to express such opinions * as you say were given by the gentleman whom you chose to believe to have been me. It is strange that individuals who would be incapable of deliberate misrepresentation to the injury of another, on any subject except Phrenology, conceive themselves warranted to depart from truth in regard to it and its professors, without being guilty of any impropriety. I shall hold myself at liberty to publish my letter and your answer, for my own vindication, as the story must have spread far and wide by this time, from your comparatively public situation; but I shall not adopt any other measures against you, trusting to your being more correct in future. I am, Sir, your most obedient servant,
(Signed) GEO. COMBE.

ARTICLE III.

CHANGE OF CHARACTER AND TALENTS, AND A SIMULTANEOUS CHANGE OF THE FORM OF THE HEAD.†

GREAT changes in moral character and talents sometimes manifest themselves in individuals, and the question is put to

* My practice, when examining the heads of persons not convicted of crimes, is to mention only development of brain, and not to assign characters.

† From a judicious American work, entitled, "Practical Phrenology, by Silas Jones." Boston, 1836.

the phrenologist, whether the head changes to a corresponding extent? This question requires a very candid and considerate answer.

1. It is important to remark upon the nature of the change which takes place in character, before we attempt to account for it by a change in the size of organs.

The first change is that which takes place before the individual arrives at maturity. During this forming period of character great changes often take place, especially in those who are about equally inclined to good and to evil practices. The different parts of character develop themselves just as circumstances draw them out at the usual age of their manifestation. More than twenty-five of the primitive faculties shew themselves during the first eighteen months, others appear at subsequent periods, and different groups claim ascendancy at different times. As to all the changes of this period, there can be no question that the shape of the head will change as the character changes. However, at this period the organs change much in relative activity, without an *equally* corresponding change in size. Those organs which have never been excited by their appropriate objects will have been less active than those which have had abundant exercise; but commence the exercise of the organs by the stimulus of their own objects, and you draw them at once into activity, and as they become active the structure improves as well as increases in size. We must not suppose that there is no other difference in cerebral organs but that of size. The differences in *perfection of structure and tendency to activity*, arising from habits of exercise, are quite as great as those of activity. Hence, judgments formed of the strength of particular faculties, without inquiry as to the education they have received, are liable to error.

2. Alterations which take place in the character of individuals after they arrive at maturity, are seldom any more than a change in the objects on which the faculties act. When this is the case, no change in the form of the head is to be expected. The faculty which respects talents, office, rank, and wealth, adores the Deity; and he that has turned from the worship of idols to the worship of the only true God, has brought into action no new organ; and unless he worship with more fervour, his reverence will not be increased in activity.

3. Changes in the form of head are only to be expected where there has been a great change in the degree of activity of organs. If organs which have been very active cease to be so, while others which have been idle are drawn into great activity, then, in a few years, we may, in many instances, be able to notice a change. This embraces the several classes of cases.

1. Where an individual is not advanced beyond the meridian

of life, and has become very thoughtful and studious for a few years, giving great exercise to the reflective organs, they will perceptibly increase in size. There are several facts which go to prove this. So, where individuals have been suddenly changed from situations which did not give much exercise and excitement to the perceptive organs to those which required great exercise and activity of them, we may expect a sudden growth of those organs.

But these cases are so rare, and the changes are so gradual, that much pains should be taken to collect the facts with accuracy. Mr Deville* has been engaged in taking casts of individuals at different periods and ages, for the purpose of making comparisons.

I have several facts, founded not upon observations made from comparison of casts, but still they are such as to be entitled to our confidence. A young artist of my acquaintance had formerly been a dealer in dry goods, and a few years since commenced the business of portrait-painting. He had been absent for several years from his mother; when on a visit to her, she called him up to her, and observing every part of his countenance carefully, said, "Your forehead has altered in form since I saw you, all the lower part of it seems to be pushed out." This was the careful observation of a fond mother, when tracing out the lineaments of a beloved son. It was no doubt true. Nearly all the perceptive organs are now very decidedly large; and he says they have increased in size since he commenced his new vocation. Young men in cities, it will be found, have greater power and activity in the perceptive organs than those who have always been in country situations. There is a constantly changing succession of objects in cities, which give ample scope and stimulus to these organs. These rapid changes are unfavourable to quiet reflection, hence the knowing organs acquire a great ascendancy.

I have noticed in very many instances that experienced navigators have the organs of Locality very prominent, and probably in consequence of great exercise of them. So with blind people, these organs become very large. It is the case of a blind man in Boston, who travels in every part of that city without a guide.

3. A third class of cases is that in which a change takes place in the feelings, as where some one or two feelings become exceedingly, and almost morbidly, active for many years, as in the case of Destructiveness and Secretiveness in G. M. Gottfried. Also, in consequence of some great shock to some feeling, as to Adhesiveness, Self-Esteem, Hope, or Love of Ap-

* See Phrenological Journal, vol. vii. p. 373.

probation, there may be a change in the form of the head in the regions of those organs.

I have in hundreds of instances seen very striking depressions in the heads of persons of mature years, but seldom in the heads of children. These depressions are most frequent at the localities of those organs which are most liable to great neglect or suffering.

It is not to be supposed that changes in the form of the skull externally, will be co-extensive with every slight change in the habits of thought and feeling. The *organs may change greatly in activity* without such a change in volume externally as to be noticeable. The organs most used may be contiguous to others most neglected. In such a case, the one would be diminished as the other increased. Neither protuberances nor depressions are to be looked for in ordinary cases. The practised phrenologist does not need them to enable him either to find the location of the organs or the innate dispositions and talents. They are rather to be regarded as rare occurrences and curiosities, which have enabled Gall, Spurzheim, and others, to conjecture the location of organs, which have since been proved by thousands of well observed facts, not less conclusive, although less peculiar.

ARTICLE IV.

A POPULAR VIEW OF THE PROGRESS OF PHILOSOPHY AMONG THE ANCIENTS: including the Early Barbaric Philosophy; the Ancient Jewish Sects; and the Grecian Philosophic Schools of the Ionic division—with notes. By JESHUA TOULMIN SMITH of Lincoln's Inn, Esq., Member of the London Phrenological Society, and Author of Introduction to the Latin Language, &c. London: Longman & Co. 1836. 12mo. Pp. 454.

It has often struck us, that a work of this nature was a desideratum in the literature of the present day;—a work containing a popular view of the philosophy of the ancients, from the first rude speculations in which any thing deserving the name of the spirit of inquiry could be detected—tracing it from nation to nation and from school to school—distinguishing its various sects—analyzing their often conflicting doctrines, and testing them by the standard of the most enlightened philosophy of modern times. This desideratum has now been supplied by Mr Smith, who has brought to the task a mind not only accomplished in classical literature, but deeply imbued with the true spirit of philosophy. Mr Smith is the first, so far as we are aware, who has tried the systems of antiquity by the standard

of Phrenology. Applying its simple and unfailing tests, he has penetrated, and, as it were, reduced to their original elements, the fanciful theories of some of the schools, while at the same time he has shewn how nearly a Socrates and a Plato attained to the highest truths.

In a popular treatise, it is not to be expected that the author can dwell on many parts of his subject as fully as their deep interest and thorough elucidation require; but, from the clear and well-defined outlines which Mr Smith has given of the doctrines of each school of philosophy, the general class of readers, for whom principally the volume is intended, will derive much sound information,—while those whose time and inclinations lead them to dive more deeply into the subject will find the volume an agreeable provocative to farther researches. Even the mere seeker of light reading will find a large fund of entertainment in the numerous biographical sketches and anecdotes interspersed throughout its pages.

The appearance of Mr Smith's volume is highly appropriate at the present time, when the public mind has received a strong impulse towards the subject of education, and when the spirit of inquiry has been awakened as to the true principles on which it should be based. The whole work, in fact, is an elucidation of, and commentary on, these principles.

Mr Smith's arrangement is simple and methodical; his style clear, copious, and elegant—often, when his subject demands it, rising into eloquence. It is distinguished, moreover, by much purity, except where an occasional transition from the English to the Latin idiom is found; this, although it may give vigour to the style, is apt to do so at the expense of that easy and natural flow in the language, which is so desirable in a popular treatise. These deviations from purity, however, with an occasional excess of involution and redundancy of expression, are minor defects, and indeed such as we should hardly have mentioned, were we not anxious to see the style of those future volumes of the work, which we hope will be called for by the public, in as perfect a form as possible. With these few prefatory remarks, we shall now proceed to impart to our readers, as far as our space will admit, some idea of the general nature of the contents of the present volume.

The great leading object of the author, as stated in his own words, is “to trace and follow with a curious and inquiring eye, the gradual steps by which the progress of the human mind is marked—to perceive its advances and its expanding power through ages of change and varied circumstances, such as the page of history relates”—to scan its operations in endeavouring to penetrate and unfold those hidden but sublime truths, which ever have engaged, and ever must continue to engage, the most profound thoughts of every age, namely, the existence and

attributes of the Deity—the nature of virtue and of vice—the origin and present and future state of the soul of man, and the qualities of all those external objects which surround him. “If,” says Mr Smith, “this investigation has been hitherto unpopular, it is not because the subject itself is uninteresting to the mass of mankind; but because it has been exhibited in an uninviting form, and enveloped in mystery. The obscure, the useless, and absurd, have been mixed up in one confused, impenetrable mass, with the intelligible, the useful and the plain, till the whole has presented such a front as to deter the prudent and the cautious wanderer from seeking to penetrate far into its depths.” By separating, therefore, truth from its numberless counterfeits—by placing, so to speak, the window of Phrenology in the breast of each philosopher as he passes in review before us—the author shews us where and why the system of one merits our highest wonder and admiration, whilst that of another deserves unqualified reprehension.

In what land, he asks, did philosophy take its rise? Some there are so desirous of finding its foundations in the remotest antiquity that they trace its pedigree up to Adam himself. But disregarding the idle whims and vagaries of such speculators, we shall pass on to the opinions held by those whom the Greeks were pleased to designate the “Barbarians,” meaning thereby all those whose country lay beyond their own small territory.

The ancient Indians appear to have made rapid strides in science and philosophy at a very remote period. Their wise men were named Gymnosophists, of whom the Brachmans formed the chief class. They believed, says Mr Smith, “that God, the creator, the ruler, and preserver of all things, pervades the universe, and dwells within it, as the soul within the body. They believed him to be immortal, invisible, omniscient, and omnipotent; and that from him were derived, by emanation, several inferior deities to whom worship was likewise due.” They conceived the earth to be spherical, and its position to be in the centre of the universe. They taught the immortality of the soul. The soul after being freed from pollution by transmigration through the bodies of various animals, was again absorbed in the divine essence. The progress of this nation in many of the arts and sciences, especially in Astronomy, was great; and their code of laws bespoke a highly civilized and commercial people. On the subject of morals, their teachers, like the philosophers of Greece subsequently, were divided into sects; but we learn from Dr Robertson that the distinguishing doctrines of the stoical school were taught in India many ages before the birth of Zeno. We can thus easily understand that many of the learned men of Greece should have been led to visit this famed country in search of wisdom.

Travelling to the westward, we meet with the Persians, whose philosophy was either originated or remodelled by Zoroaster, who flourished about five centuries B. C. Zoroaster taught the doctrine of a superior Being, and of two subordinate opponent principles of good and evil—the former of which was ultimately to be victorious. He restored the order of the Magi, the guardians of religion.

We must pass over the soothsaying Chaldeans and Phenicians, in order to follow our author into Egypt. Were we to plunge into the antiquity of the early historians of this country, we suspect we should find ourselves in the midst of *megalosauri* and *megatheria*. We shall therefore let

“Shadows, clouds, and darkness, rest upon it.”

In no country has priestcraft attained more complete sway than here. The priests, being the depositaries of all learning, in order to throw a veil of mystery over their doctrine, and keep up the superstitious reverence of the people, preserved all sacred writings in hieroglyphic characters, which only the initiated could expound. Their ideas regarding the immortality of the soul resembled those of the Indians. The miserable superstition of Egypt is too well known to require notice here.

Passing over the Ethiopians and other minor branches, as well as the Jewish sects, we refer the reader to Mr Smith for an insight into the creeds of the proud, self-righteous Pharisees—the sceptical Sadducees—their Cabala and their Talmuds. And here we take leave of the philosophy of the barbarians, and turn to the more interesting speculations of the Greeks.

The first rudiments of Philosophy are supposed to have been imparted to the Greeks by their poets and legislators. The former embodied the truths which they taught, or are said to have taught, in the shape of fables and allegories. Thus, we are told that we should regard the poems of Hesiod and Homer not merely as works of a rich imagination, but as depositories and vehicles of religion, morality, and wisdom. And in the adventures and deeds of their gods and goddesses, we are to read a glowing delineation of the passions, moral qualities, and sentiments of man. We are told, too, that these poets had a pure and exalted idea of the Supreme Being. If such was the case, certainly they have done their utmost to disguise their knowledge, and to blind the multitude by the brilliant light of their imaginations.

Orpheus, Hesiod, and Homer, are among the earliest of their poets. In regard to Homer we are told by Mr Smith, that “so great was the estimation in which the works of this bard were held among his countrymen, that his authority was sufficient to decide the boundary of any territory which his *Iliad* or his

Odyssey described ; and a quotation from his verses was esteemed a decisive and unanswerable argument in the settlement of disputes." Who, after this, shall talk of the fictions of the poets ?

Among the early legislators of Greece, were Prometheus, Draco (whose laws, from their severity, were said to be "written with blood"), and Lycurgus. Mr Smith gives an account also of the "seven wise men of Greece," many of whose precepts and maxims have been handed down to us, and will be found to contain much of practical wisdom.

We now approach that period when philosophy began to assume a more dignified aspect, and to give out her lessons in those schools which are now so celebrated. The Ionic and Italic schools were the original foundations on which so many systems were subsequently raised. As the systems of philosophy adopted in the latter are reserved by Mr Smith as the subject of another volume, we have here to consider only the former, or Ionic school.

From this school arose the Socratic, and from the Socratic sprang the minor and major schools—amongst the latter the Platonic and Cynic. From the Platonic again flowed the Academies and the Peripatetic school ; and from the Cynic school the Stoic had its origin. To render this more distinct, Mr Smith has exhibited the whole in the form of a genealogical table, to which we must refer the reader. Several of these schools existed at one and the same time—frequently in the same city.

The first division of the Ionic school, from the period of its founder, Thales the Milesian, down to the time of Socrates, may be considered as devoting its attention more especially to the advancement of natural philosophy, which, accordingly, during that period made great progress. Of Thales, says our author, "we may safely venture to assert, that had he lived in a more recent period, when science had made somewhat further advances, and when the advantages and opportunities which he might have enjoyed would have been greater, he would have taken a place among philosophers,—among those who have expounded what are called the *Phænomena and Laws of Nature*,—on the same level with a Galileo, a Bacon, or a Newton." The most celebrated of his followers in this department were Anaximenes and Anaxagoras.

Hitherto we may be said to have been wandering through the porches or outer courts of the temple of philosophy. But now we are about to penetrate to its inner recesses, and to be ushered into the presence of the prince of philosophers—Socrates himself.

From the efforts which Socrates made to cultivate his mind, whilst working at his occupation of a stone mason or petty

sculptor, and the superiority of his conversation to his condition, he was—by what is called *accident*—noticed by a wealthy citizen named Crito, the education of whose children the philosopher was engaged to superintend. He now eagerly attended the lectures of Anaxagoras, and the other teachers of Athens, studying all the knowledge of which Greece then boasted. Afterwards, he went about communicating to all who would listen to him the knowledge he had acquired, and inculcating the morality with which his lofty sentiments inspired him.

“His opinions respecting the Deity were of a nature which needed little of revelation to render them as perfect as can be attained by man. He taught that God is One, perfect in himself, the cause and preserver of every existing thing.

“In proof of the existence of the Deity he appealed to his works; to the beneficence exhibited throughout creation; to the nature of man;—to his reasoning mind, and to his faculties in general.”

“His moral doctrines, like his theological, demand our highest admiration. He had listened to the remarks of Archelaus. He had perceived some grand error in the opinions which that philosopher had uttered; and mature consideration taught him that there are certain immutable laws to which all must conform. These he called the ‘Laws of God.’ The infringement, in the slightest degree, of any one of these, carries with it, he said, its own punishment. Thus would it follow, and thus he made it apparent, that it is the true interest of every man to act in accordance with these dictates; that morality and virtue will be found by all the only sure path to happiness.

“This is a profound doctrine. It is a doctrine which has never yet been practised,—never understood; and it is only lately that it has received its fullest and most beautiful exposition and illustration by a philosopher* of our own country,—one of the benefactors of his race.”

In commenting on the doctrines of Socrates, Mr Smith naturally alludes to the science of the human mind, and introduces many highly interesting observations on the subject of Phrenology and Education. Into these topics, however, our limits will not permit us to enter. Neither can we do more than merely mention the minor schools; amongst which are included the Cyrenaic sect founded by Aristippus—the Megaric by Euclid (not the mathematician)—and the Eliac or Eretraic by Phædo of Elis. Once more we refer to the work itself for the distinguishing doctrines of these schools, and the interesting analysis which, by the aid of Phrenology, Mr Smith gives of them, and thence of the leading mental features of their respective founders.

* “The Constitution of Man. By George Combe. Fourth edition, 1835. Longman & Co.”

We mentioned that the first of the greater schools was the *Academic*, founded by Plato "the divine." To the consideration of the life and sublime doctrines of this philosopher we now advance.

During eight years Plato was a constant attendant upon Socrates. After the death of that philosopher he travelled to various countries and schools, in order to complete his studies. Amongst others he twice visited the Pythagoreans in Magna Græcia, whose doctrines appeared to make a strong impression on his mind. At length, his travels being completed, he returned to Athens, and in "Academus's sacred shade" harangued to admiring crowds on "the beauties of philosophy, of wisdom, and of virtue, and the excellence of that code of pure morality which Socrates had taught him."

According to the Platonic doctrine, there are *three primary principles* of all things—God, Matter, and Ideas. "Of these, God is the only perfect and supreme being;—he is eternal and uncreated; the source of truth and good; the former of all things, and fountain of life; himself being incorporeal;—in short, the view which appears to have been taken by Plato of the divine attributes and nature, was most exalted, and can scarcely be exceeded, it may be confidently asserted, by that of the most enlightened Theist of modern times. It is somewhat the fashion to speak lightly of the knowledge of the Deity which the ancient philosophers possessed, and to treat their opinions on this important subject with contempt; but such language and such conduct bespeaks only ignorance, and the powerful working of Self-Esteem, unchecked by knowledge and reflection. Little short of revelation do many of the doctrines of these eminent philosophers approach, and they ought therefore to receive the more honour at our hands,—inasmuch as that without the aids which we have, they attained to so high a point,—even though they did, in some respects, fall short of that which revelation could alone afford, and with which it has pleased a wise and benevolent Deity especially to bless us in more modern times."

We should do injustice to Plato's doctrine of Ideas and of Matter, as well as those of Necessity, of Vice, and of Punishment, were we to attempt to give them in the compass of a few lines. His opinion in regard to the immortality of the soul is well known.

As we have not yet given any example of Mr Smith's phreological analysis of the characters that have come under his notice, we shall now present what he considers to have been the cerebral development of Plato. "We cannot mark his character, as those of Euclid, Phædo, or Aristippus, by one or two distinguishing peculiarities,—we cannot say of him that one or two faculties influenced his conduct and his doctrines. His

must have been a very large and *generally* powerful and active head; and we may feel certain that the whole of both the *anterior* and *coronal regions*, to speak in phrenological terms, were very largely developed, while the *posterior* region must have been but moderate;—so small as to be entirely under the check of the former.

“All his *Intellectual* and *Reflective* faculties,—to explain the above technical language,—must have been endowed with extraordinary powers, and their operations must have been, indeed, the predominating characteristics of his mind; while his *Moral Sentiments* must have been highly influential, and the *Inferior Propensities* in constant and complete subjection, as all the circumstances of his life and conduct amply testify.

“Perhaps if we were to attempt to enter more in detail into an enumeration of the particular organs or faculties which would appear to have exerted the most direct influence in the formation of the opinions, doctrines, and productions of this ‘divine’ philosopher, we should point out *Ideality*, *Language*, *Causality* and *Comparison*.

“It was *Ideality* which led him to apply at first with so much eagerness and pleasure to poetry and music; and every page which he subsequently wrote, on whatever subject it may be, displays the same beautiful poetic spirit. It was this *Ideality*, combined with *Language*, which gave that grace and elevation, that splendour and sublimity to all his writings, by which they are throughout so eminently distinguished; which has caused the universal admiration which they ever have obtained and ever must obtain; which gave Cicero just reason to exclaim, ‘If Jupiter had wished to speak in Greek, he would have chosen Plato’s language.’”

“The influence which *Causality* and *Comparison* exerted, will be obvious on a mere inspection into his doctrines and his speculations. Both these organs appear to have been extremely large, and to have been directed to more useful and important subjects than the *Causality* of the Megaric school.”

The Academic school continued until the decline of Grecian literature, under the names of the *Old*, *Middle*, and *New Academy*.

Amongst the disciples of Plato was Aristotle, a man with whose name, strange to say, the world is perhaps much more familiar than with that of his illustrious teacher. Aristotle continued with Plato for about twenty years, until the preceptor’s death. After this event, being disappointed that another was elected to the chair, he retired from Athens, and afterwards became tutor to Alexander, son of Philip of Macedon, for eight years. When Alexander set out on his Asiatic expedition, Aristotle returned to Athens, where he resolved to establish an opposi-

tion school in the Lyceum, a piece of ground in the suburbs of the city. Here he accordingly founded the Peripatetic school, which he continued to teach for twelve years, till he was compelled, by the jealousy entertained of him, once more to retire from Athens. He did not long survive this exile.

After contemplating with admiration the sublime doctrines of Plato, we find ourselves looking with very different feelings at those of Aristotle. The system of the latter, indeed, was “a *philosophy of words* rather than a *philosophy of things*.” His ethics had lost that elevated and ennobling character which marked those of Plato; and his physical doctrines were “involved by their author in obscurity and difficulty, in order that he might seem the more to differ from, and to excel, his predecessors.” As a naturalist, Aristotle holds a distinguished place; but at present he comes under our notice merely as the founder of a philosophic sect. In examining his character phrenologically, Mr Smith says: “We are led unhesitatingly to affirm, that the form of his head must have differed most remarkably from that of Plato. The *Coronal region*, or that of the *moral sentiments*, must have been low and narrow in the head of Aristotle; *Self-Esteem* and *Love of Approbation*, especially the latter, being, however, very largely developed. *Comparison* must have been by far the most influential of his intellectual organs. By the exceeding and unrestrained and perverted activity of this faculty, without *Ideality* to direct its operations into a pleasing channel, every page of his writings, and every branch of his doctrines, whatever be the subject or the connection, is tinctured and obscured. *Causality*, *Secretiveness*, and *Individuality*, must have likewise predominated very powerfully over the other *Intellectual* organs of his brain; but these, like *Comparison*, being unguided by the *Moral Sentiments* and the more ennobling faculties, were diverted into courses which contributed chiefly to the gratification of *Combativeness*, *Love of Approbation*, and *Self-Esteem*.

“The justness of these observations cannot fail, we think, to be perfectly obvious to any one at all acquainted with the writings of the individual under consideration. Aristotle is, indeed, one of those whose productions abound in distinctions without differences, and arguments without reasoning; who have buried the good, the excellent, and useful, in the dark, the useless and absurd, and have thus caused a subject, in itself interesting and important, to put on an appearance at once repulsive, and void of all beneficial tendency.

“A misdirected *Comparison*, combined with *Language*, *Individuality*, and *Causality*, appears to have been the chief object of his gratification; and, as we search through his voluminous and varied writings for an exposition of the Peripatetic

school, we find much more care taken, and space occupied, in enumerating the definitions and distinctions of the terms employed, than in expounding opinions or in detailing a philosophical series of investigation; every path is choked up and incumbered by a confused mass of obscure and unintelligible jargon, instead of being elucidated and exhibited in the glowing and splendid language of a Plato.

"His *Love of Approbation* and his *Self-Esteem* are exhibited in no slight degree in his efforts,—seldom restrained by *Conscientiousness* or the *Moral Sentiments*,—to create for himself a name and reputation as the founder and head of a school of philosophy.

"It was this combination, influenced by *Combateness*, which led him to misrepresent and misstate the opinions of preceding and contemporary systems and philosophers, in order to abuse and overturn them; nor did he hesitate to borrow from the systems which he thus abused, the doctrines which distinguished his own sect; distorting them in order to conceal them, and adopting fresh terms in order to disguise his piracy."

A sect of philosophers of an extraordinary description now comes upon the stage. Amongst the disciples of Socrates there was one of a gloomy, discontented, morose disposition,—a man whose bosom appeared to be impervious to every generous emotion;—such was Antisthenes, afterwards the founder of the Cynic sect. "A coarse cloak, a wallet, and a staff, were the external marks of the Cynic philosopher," and the inner man corresponded with the "outward and visible sign." A pupil worthy of such a master was Diogenes. But from this repulsive school let us turn to examine the sect which closes the history of philosophy as founded on the Ionic school—we mean that of the Stoics.

This sect, founded by Zeno, shewed, though in a modified form, its Cynic descent. Its professors conceived the Deity to be controlled by an inevitable fate. To this Zeno ascribed the introduction and origin of moral evil. In common with many of their philosophers, he believed in the existence of inferior deities. While Montesquieu and other writers commend the moral doctrines of this sect as tending to promote the welfare of mankind, Mr Smith considers that such an opinion has been founded on too limited a view of their system. Although latterly their doctrines became modified on certain points, owing, as is supposed, to much of the tone of Christianity having been silently incorporated with the system of Zeno, still the grand feature of their creed,—indifference to all external circumstances,—necessarily made their virtue to be of a very negative kind,—leaving out of view, of course, all the winning graces of the Christian character. One of the chief stoic doctrines was, that

virtue alone is sufficient for all happiness, independently of the circumstances of pain or suffering, mental or bodily, in which we may be placed !

In commenting upon the opinions of this sect, Mr Smith introduces many sound and eloquent observations on the laws of nature—vindicating “the ways of God to man.” He speaks in justly severe terms of the miserable infringement of these laws under the social system as at present constituted, and points out in the strongest terms the importance, the absolute necessity, of education. This may, indeed, be said to be his object throughout the volume, and we think it is impossible for any man to rise from its perusal without feeling deeply sensible of this momentous truth.

We here conclude this imperfect sketch of the contents of Mr Smith's book, by expressing our delight in meeting so enlightened and powerful an ally in the cause of education. While so many talented minds are at work spreading abroad a knowledge of the true principles on which education, to be worthy of the name, must be based, we cannot doubt the triumphant success which awaits their endeavours.

We look forward with much pleasure to the continuation of Mr Smith's work, and, in the mean time, heartily recommend to our readers the volume already published.

ARTICLE V.

A FACT ON THE CONNECTION BETWEEN MENTAL EMOTIONS AND CERTAIN STATES OF THE BODY. By HEWETT C. WATSON.

To persons unacquainted with the advantages derived from physiological observations on the lower animals, it may appear a very trivial proceeding to narrate the actions of a pair of cats. Yet the following fact is so interesting in a physiological view, and has such a real importance from bearing directly on the question of moral responsibility, that I feel desirous to make a record of it, which will meet the eyes of phrenologists. I have two cats, sisters of the same age, and brought up constantly together except during one week. They have always exhibited strong mutual attachment; so much so, indeed, that at times it has appeared both to myself and to the servants, by whom they are usually fed, as if one could not fully enjoy its food unless the other fed with it. But this may be only a symptom of acquired habit, for intense selfishness is quite apparent when either of them catches a bird or mouse. It then brooks no approach from the other, until after the prey has been devoured.

From their first pregnancy, one of the cats had a litter of kittens about three weeks before her sister, all of which were destroyed except one. The mother of the surviving kitten exhibited no accession of hostility towards her sister, but the sister evinced the greatest repugnance to approach the kitten, refusing to remain in the same room with it, and growling most crossly when forcibly brought towards it. This continued for ten or twelve days; at which time the second cat exhibited, in so marked a degree, the symptoms which I have many times observed to precede parturition in cats, as to make me feel almost convinced that its kittens would be born within a few hours. To my surprise, however, these symptoms continued for nearly three days without a birth, during the greater part of which period there was an entire change of behaviour towards the kitten of the other. It was no longer an object of dread or dislike, but was licked and fondled with the appearance of great parental affection; its mother not at all taking umbrage at the attention thus bestowed upon her offspring. The apparent symptoms gradually ceased, were slight on the third day, and not evident on the fourth. By this latter day, the kitten had again become an object of dislike, and was shunned for several succeeding days; yet scarcely in so decided a manner as previously. About another week elapsed before this second cat was actually confined, and then, after a very few hours of premonitory symptoms, it was found to have retired to the nest of the previously abhorred kitten, which latter it was quietly suckling along with its own brood, the true mother looking on as a spectator. The young brood was immediately destroyed, and the first kitten was thenceforward amicably shared between the two mother cats, all three sleeping close together at night, and being seldom separated during day. It is worthy of notice, that the second cat seemed to have no notion that a kitten of three weeks old was not to be treated like one just born. For the first fortnight, and upwards, it treated this advanced kitten in a manner just appropriate to kittens of the age its own would have been, if still living; never attempting to play with it, seldom quitting it, and manifesting much uneasiness when the kitten preferred to crawl about, instead of lying down to sleep with its self-constituted parent. From first to last, it obviously preferred to play with its own mother, and to be suckled by her; but, when sleeping, it was usually coiled in the folds of its foster-parent. Neither of the cats was ever seen to bring a morsel of food to their little one, which is contrary to the usual habits of such animals. When half grown up, the kitten was sent away, and the two cats seemed then to acquire a stronger mutual attachment than ever, half their day being spent in licking each other, or sleeping

coiled closely together. This great intimacy gradually cooled down to the state of their earlier attachment, or lower.

Looking to the physiological bearings of this case, I am not able to account for the apparent symptoms of approaching parturition, a full week before the reality, and their subsequent disappearance. The close connexion which seemed to exist between the symptoms and the cerebral excitement, or activity of Philoprogenitiveness, merits attention; but which was the antecedent (if we may not say *the cause*) of the other, can be a guess only. The commencement and cessation of the symptoms and psychological phenomena were so gradual, and came so unexpectedly, that my observations were wanting in the requisite precision; but my impression is, that the cerebral excitement followed the other symptoms, in the first instance, and waxed feeble as they waned away. If the mental emotions originated in cerebral excitement, induced by the temporary state of some other part of the frame, I fear that poor puss can justly lay claim to no more real merit, on the score of increased kindness to the kitten of her sister, than belongs to the calyx of a cherry-blossom for its involuntary protection of the embryo fruit.

Whilst mentioning my feline ladies, it may be added, that they are as unlike each other in disposition, except for their mutual attachment, as two cats well can be, who are sisters of equal age, nearly alike in colour, brought up together, and pretty well educated. In explanation of this difference, they carry heads very unlike as to shape; and there is also a very obvious difference of temperament. It is difficult to account for such dissimilarities, according to received notions of the hereditary transmission of qualities; and we occasionally see them in human twins.

ARTICLE VI.

PHRENOLOGICAL ANALYSIS OF PATRIOTISM. READ BEFORE THE EDINBURGH ETHICAL SOCIETY FOR THE STUDY AND PRACTICAL APPLICATION OF PHRENOLOGY, BY W. B. HODGSON, ONE OF ITS PRESIDENTS.

"Eadem ratio fecit hominem hominum appetentem, ut profectus a caritate domesticorum ac suorum serpat longius, et se implicet primum civium, deinde omnium mortalium societate."—*Cic. de Fin.* li. 14.

"Duas republicas animo contemlemur; alteram magnam et vere publicam, quâ dii atque homines continentur; in quâ non ad hunc angulum respicimus, aut ad illum sed terminos civitatis nostræ cum sole metimur; alteram, cui nos adscripsit conditio nascendi. Haec aut Atheniensium erit, aut Carthaginiensium, aut alterius alicujus urbis, quæ non ad omnes pertineat homines sed ad certos. Quidam eodem tempore utrique reipublicæ dant operam, majori minorque; quidam tantum minori, quidam tantum majori."—*Seneca de Otio Sap.* c. 31.

MAN is essentially a social being, formed for communion with his fellows, for dependence on their aid. No sooner is he ushered

into being, than he becomes part of a small society; he has parents, brothers and sisters, relatives and friends, more or less nearly allied: in maturer age, he is himself a husband, a father. In short, at every period of life, he is one of a family with which he may be connected by various ties. This is the *domestic* relation, the simplest and earliest form of social union. But further, he is a branch of a political family; he is the subject of a government, the member of a state; he is connected with others as fellow-citizen and fellow-countryman. This is the *civil* relation. But he forms part of a still more extended society: he is one of the family of man, spread over the whole expanse of earth, of whatever colour or language, all created by the same Almighty hand, and linked together by one common brotherhood. This may be called the *social* relation in its widest extent. In one or other of these three great divisions may be classed all the minor and peculiar relations which exist between man and man, and all the various duties incumbent on one human being in his intercourse with another.

From the *first* arise his domestic duties; his obligation to filial reverence and obedience, to brotherly love, tenderness, forbearance; to conjugal and parental affection, and all the nameless virtues which adorn and bless a family. From the *second* arise his civil duties; loyalty, obedience to legal magistrates, and superiors; the obligation to preserve order and the authority of law, to support virtue and repress vice in the state to which he belongs, to advance its interests and defend it from attack. From the *third* arise what may be comprehensively called the duties of humanity,—the duties between man and man, which every human being owes to every other as such,—universal charity, and diffused philanthropy, that crowning excellence of the Christian character, which looks on every man as a neighbour; the obligation to promote the moral and intellectual improvement, and thereby the temporal and eternal happiness, of every heir of humanity. This system of things is not, as some philosophers would have us believe, the result of accidental circumstances, or of expediency, or of a deliberate compact; it is derived from the very conditions of our existence, and accords with deeply-rooted principles in our mental constitution. This arrangement, therefore, is not the creation of man but of God; and in it we shall not look in vain for traces of His benignant hand. By this arrangement the good of the individual man, and the good of the human race, or sum of individuals, are equally attained.

I. Surely I need not say how much of the individual's happiness, from infancy to youth, from youth to age, resides in the bosom of a family. Here his helpless years find protection; here he receives the lessons of knowledge, and wisdom, and pru-

dence, and virtue, so indispensable for his success in the station in society which he is destined afterwards to fill; here he is trained to submission to the will of others, and yet to dependence on himself; here he is taught sympathy, and kindly feelings towards his fellows—lessons which, if deeply impressed at home, the heartlessness of the external world can never utterly efface; here, through life, he breathes a pure and healthful moral atmosphere, which softens down the asperities of character, and brings into play all the softer feelings and affections.

II. In the civil circle, by the division of labour which there exists, the enjoyments of the individual, his very means of subsistence, with even a diminution of his own exertion, are increased to a degree that can never be attained by uncombined effort: wealth, civilization, knowledge, morality, the blessings of equal laws and useful institutions, are thus extensively diffused; virtue and industry are protected; vice and idleness are discouraged; the rich are guarded against depredation; the homeless poor and sick have their sufferings alleviated; the weak are defended against the strong; brute force ceases to be the only distinction, as in savage life. In short, in the political society, man obtains all the benefits of well-regulated government, of motives to exertion, and security in the enjoyment of its fruits; and all the advantages of extensive and harmonious combination.

III. The utility of the third and widest relation to the individual is not less important. Of course, it will be at once admitted that the physical comforts of the individual are augmented in proportion to the spread of trade and commerce, and the multiplication of commodities consequent on an increased communication with the various nations of the earth. But it is a higher utility for which I now contend, a utility which is not so obvious; for in the way requisite for its production, the relation itself has seldom been recognised. Men have hailed others as their brethren because they were born by the same parent, or on the same spot of ground, and they admit their claim to sympathy and assistance; but in the community of faculty, of thought, of feeling, of passions, of wants, of desires—in short, in the perfect unity of nature which exists among all the children of humanity—they have in general failed to see any title to their affection; all these things in which they agree have been overlooked, and the comparatively petty differences by which they are distinguished have been exaggerated in importance; barriers, however flimsy, have been sufficient to prevent their sympathies from diffusing themselves beyond their own narrow round. Man is just beginning to understand his own nature: he is just beginning to appreciate its true dignity and value; to perceive that the happiness of the individual is inse-

parably bound up in that of the race ; to learn that he possesses a principle of benevolence, which, when properly developed, is not to be satisfied with the production of any partial amount of good—desires that are constantly panting after more numerous objects, and wider fields of action ; that he is led by his very constitution to wish and labour for the happiness of all ; and that it is only in his endeavours for the attainment of this end that he himself can reach the noblest and most enduring delights of which in this world he is susceptible ; or train himself for ever-increasing enjoyment in a future state of being, when his powers and capacities and love of others shall be enlarged, and an infinitely more expanded sphere of exertion and utility shall open before him.

Thus the happiness of the individual is secured. He is the best and happiest man who best fulfils the duties of all these relations ; who does not forget his duties as a citizen and a subject from an overweening love of his own children or friends ; who does not sacrifice his domestic duties to what he may consider the interests of a state ; who does not neglect the care either of his own family or of his country for benevolent but profitless dreamings after universal felicity ; and who, on the other hand, does not allow his fond attachment to his own family or country to crush or enfeeble in his soul the love of mankind at large. It is as existing under all these relations that man is the subject of the Divine government, which requires, as the evidence of our love to God, the faithful fulfilment of their various obligations ; and it is by their fulfilment that his whole nature, moral and intellectual, is improved and perfected.

But I have said that by the same arrangement the good of the race as well as of the individual is attained. It is by the diffusion of domestic peace, security, and virtue, that the interests of a state are best consulted. Where there is no family concord and devotion, no domestic tranquillity and love, there can be no true citizenship, no interest in the preservation of order, no true attachment to country,* no real desire to promote its welfare. Again, it is by diffusing wealth, and civilization, and

* " If *pro aris et foci* be the life of patriotism, he who hath no religion or no home, makes a suspected patriot."—Bishop Berkeley's *Maxims on Patriotism*, 1760, sect. 16.

" For when was public virtue to be found,
Where private was not ? Can he love the whole
Who loves no part ? He be a nation's friend
Who is in truth the friend of no man there ?
Can he be strenuous in his country's cause,
Who slights the charities for whose dear sake
That country, if at all, must be beloved ?"

Cowper, *Task*, b. v.

" *Nefas est nocere patriae : ergo civi quoque. Nam hic pars patriae est. Sanctae partes sunt, si universum venerabile est.*"—*Seneca de Ira*, lib. ii. c. 31.

knowledge, and morality, through a state that mankind are served ; not, as some philanthropists inform us, by prostrating our special affections, our love of our own family, or friends, or country, as too narrow and exclusive feelings.* Mankind are benefited not by Utopian schemes of benevolence on a scale incompatible with our means—not by efforts at universal good, which, “ like circles in the water, by wide-spreading do disperse to nought ;” but by vigorous and well-directed exertions in the field allotted us ; by improving our own country, and enabling our own countrymen to act in masses on their fellow-men with a wholesome energy, and spread the desire and means of improvement to other regions of the earth. On the other hand, the improvement of the world in general, has obviously a strong reciprocal influence on the progress of a state. In this way the improvement of the individual and that of the race are inseparably joined.

In these observations I have endeavoured to point out not so much the actual results as the capabilities of this arrangement. It is thus only that we can judge correctly of an institution which has been adapted to man in every condition, in barbarism and in civilization. If man be destined by a course of gradual progression to reach a higher state of moral culture than he has ever yet attained, and if this system be suited to his nature at every stage of his advance, of course its greatest advantages cannot have been yet produced ; but it is only reasonable to expect that, in every succeeding age, they will be more clearly and extensively developed. And it is in the fact that individual morality is indispensable to the attainment of the possible results of the social dispensation, that we read the evidence at once that God, its author, is a pure and holy being ; and that man, the creature of his formation, is made for purity and holiness. I have endeavoured to shew that the *interests* of all these relations are not only compatible, but inseparable, nay identical ; and only man's ignorance and folly have in any case imagined their *duties* to be opposed. The full benefit of the social economy can be obtained only when the duties of its different relations are obeyed harmoniously ; when any one of these is regarded to the exclusion of any other, misery is the result—misery proportioned to the extent of the offence, and of the benefit which would have attended their simultaneous and combined operation. Bearing these general principles, then, in mind, let us now proceed to the more immediate object of this paper, in the course of which they will receive ampler illustration.

* See Soame Jenyns's *View of the Internal Evidence of Christianity*, p. 46. 10th ed. Edin. 1798. Shaftesbury's *Essay on the Freedom of Wit and Humour*. Grose's *Olio*, p. 77. Essay 18. Lond. 1796. Chalmers's *Bridgewater Treatise*, vol. vol. ii. Hazlitt's *Spirit of the Age*, Char. of Bentham, p. 14. Bulwer's *Student*, vol. ii. p. 254. Coleridge's *Letters*, vol. i. p. 65. Melmoth *Transla. of Lex de Amicit.*, note 68.

Attachment to the place of his abode, whether an innate principle of the human mind or merely the result of association,* is a feeling universally observable in man. In the minds of those whose home is the place of their birth, it is naturally connected with their first experience of life, and light, and health; a mother's fondness and a father's care; the affection of relatives; the sports of boyhood; the occupations of riper youth; the first dawning of hope and aspirations after happiness;—with the season when life, and nature, and futurity, and all things, seemed fresh and beautiful, ere the disappointments of maturer years had chilled the warmth of youthful expectation. Even when our home has not been the scene of our birth and early life, still it has much to endear it to our hearts; it is linked inseparably with all our pleasures and pursuits; the thought of home gives us strength to labour and fortitude to endure; thither do we look for comfort; there do we take refuge from every external evil; there are gathered together those who are more precious to us than ourselves—those who are not less beloved because they are the friends more of sympathy and choice than natural consanguinity: in ten thousand ways are our feelings, our thoughts, our actions, identified with home; to it we are bound by ties which increase in number and in strength with increasing years. This feeling, which is at first confined within a narrow compass, gradually expands; and, as it becomes associated with a greater number of objects, it constantly extends its limits, till it comprehends the land as well as the actual spot of our nativity—till it embraces not merely a village, a city, or a district,

* It is well known to every phrenologist that Dr Spurzheim referred Attachment to Place to a primitive faculty which he called Inhabitativeness; its proper function he believed to be love of a particular spot—unwillingness to leave a place where we have been settled. The organ he assigned to this faculty is marked No. 3. Later inquirers, however, have questioned Spurzheim's doctrine. The true function of this faculty Mr Combe states to be the giving of a continuity of thought and feeling—the power of concentrating the whole mind on a particular object; he has, accordingly, named it Concentrativeness. He nevertheless believes it to be instrumental in producing love of place, and, upon the whole, his view of the subject appears to agree with the opinion of Dr T. Brown, afterwards quoted. Dr Otto of Copenhagen believes No. 3 to be the organ for Attachment to Home and love of country, and thinks himself justified in this opinion because this propensity does not coincide with attachment in general. Dr Hoppe, of the same place, who holds Mr Combe's views, says, "It may have some share in love of country, but it must be joined, I suppose, by Veneration, and perhaps Self-Esteem, to take this especial direction."—*Phren. Journal*, vol. ii. pp. 195, 510.—A more recent writer believes it to be the organ of "Love of object or pursuit." It is observable, however, that all these writers, to whatever extent they may differ regarding the primitive function of this faculty, agree in thinking that it contributes more or less directly to the production of love of home. The subject being still open to discussion, I do not consider myself entitled to insist on any opinion. That association at least increases love of home, if not entirely produces it, will be at once granted; and I leave for future inquiry the question, How far the feeling arises from an independent faculty?

but a state, a nation, or a country. Not that we regard our country with the same intensity of love as our immediate home, or that the one feeling is lost in the other; but as the light, whose strongest brilliance may be confined to a single point, still diffuses radiance around, so does our home endear to us our country and all which it contains. Within its boundaries all are united with us by common rights and common interests. Separated as we are from other countries by difference of laws, of customs, perhaps of language and religion, within the circle of our own are comprized all that we love or value; the ideas of our country and our home are reciprocally connected; our attachment gathers strength from numberless sources; from interest in our country's story, familiarity with its scenery, reverence for its institutions; its lifeless scenes become invested with a living interest; in short, there is no feeling of the human heart which may not insensibly and inextricably be mingled with it, and augment its energy and depth.* Supported by such variety of associations, if not originally springing from their union, it seems to acquire a self-existent force, and to become independent of their aid. Even when the objects that made our country dear have ceased to exist, it is still ardently beloved. Friends may have passed away, fortune may have fled; but still the mind hovers round the scene of its former happiness, as disembodied spirits are said to haunt the ruined mansions of their earthly splendour. Incapable perhaps of continuance in the absence of all delightful associations, either present or past, there are few without which singly it may not be found. Love of country lives and grows under all circumstances—under all varieties of climate, all changes of fortune, amid poverty and desolation; nay, there are some who cling to it with the closer and warmer love for this very reason, as if amid their general destitution it were the only object left for their affection.† Hence the

* Dr Brown remarks, "By this, we acquire the power of fixing in a great degree our too fugitive enjoyments, and *concentrating them on the objects which we love*. Why is it that the idea of our home and of our country has such powerful dominion over us that the native of the most barren soil, when placed amid fields of plenty, and beneath a sunshine of eternal spring, should still sigh for the rocks, and wastes, and storms, which he had left? It is because home does not suggest merely a multitude of feelings, but has itself become an actual multitude."

"The Ranz des Vaches, which has such an effect on the mind of the Swiss peasantry, when its well-known sound is heard, does not merely recall to them the idea of their country, but has associated with it a thousand nameless ideas, numberless touches of private affection, of early hope, romantic adventure, and national pride, all which rush in mingled currents to swell the tide of fond remembrance, and make them languish or die for home."—Hazlitt's *Table Talk*, Essay 4, p. 75, note.

Spenser's *Fairy Queen*, book ii. c. x. St. 69. Moore's *Lalla Rookh*. *Five Worshipers*, Part I.

† See Scott's *Lay of Last Minstrel*, c. vi. 2; Montgomery's *West Indies*, Part II.

misery of banishment: the exile grasps with eagerness all that can remind him of his own land; he feels delight from the presence of the meanest of his countrymen, whom at home he would have despised, perhaps detested; his heart is stirred within him by the humblest object which recalls the image of his former home.*

Were it necessary to my more immediate purpose, or consistent with the limits of this essay, I might expatiate at greater length upon this feeling, and shew its value in fixing men to the particular locality where they have been placed, to which they are best adapted, and where their exertions may be most extensively and permanently useful. But this would be foreign to my object; for let it not be thought that patriotism and love of country are the same. Patriotism is not, as it is generally styled, mere love of country; it is not a mere attachment to the spot of our nativity, or the place of our abode. It is something more; it is a desire for the advancement of our country for its own sake. Love of our own land is no doubt generally one great source, one fundamental constituent of patriotism, but it is not patriotism; for this mere love of country does not necessarily imply a wish for the exaltation of its object. No man is a patriot, merely because he loves his country more than any other; because his thoughts continually bear him homeward. All this may be, but if he feel no wish to see his country flourish, its power prevail, its territory extended, its resources increased; if he have no desire to fight its battles, to promote its interests, and advance its greatness, he has no claim to the title *Patriot*. That even the strongest attachment to country may exist without this desire for its greatness, Lord Byron was perfectly aware when he drew the character of Jacopo in his beautiful drama of "*The Two Foscari*." In Jacopo we see the unshaken, the invincible affection with which he speaks of Venice, though both body and mind were yielding beneath the cruelties which had been there inflicted on him; the earnestness, and I may say the abjectness, of his entreaties for permission to remain, though he had been exiled, and then tortured and thrown into prison for daring to return; the unhesitating preference of the deepest and most aggravated misery in Venice, to wealth and happiness in any other region; the eagerness of his wish that he may not live to be again thrust out, but that Venice may receive his bones; and the

* Murphy in his *Travels in Portugal* (p. 231, 4to, Lond. 1795), tells us "that the Portuguese Jews, when expelled by King Immanuel, carried quantities of earth along with them, and desired their relations to place it in their coffins after death." "This," observes Murphy, "was indeed carrying the love of country into the grave." "*Le osse fremono l'amor di patria*." Napoleon, when at St Helena, said, that, if led blindfold to Corsica, its very smell would enable him to recognize it.—*OMeara's Voice from St Helena*.

strange joy which, even in death, he derives from the thought that his wish had been accomplished. "I ask no more than a Venetian grave, a dungeon, what they will, so it be here." "Better be ashes here, than aught that lives elsewhere." "My native earth will take me as a mother to her arms." Stronger love of country than this we can nowhere find; some may think it even unnatural and exaggerated; but in all this there are no breathings of zeal for its prosperity and its aggrandizement—in fine, no patriotism. I have used this character not as an example, but simply as an illustration. I shall not inquire how often or to what extent these feelings may exist independently in real life; I merely contend, that, however closely or even uniformly connected, they are distinct objects of thought, distinct in their nature, and not necessarily combined. Love of country naturally leads to zeal for country; zeal for country generally arises from love of country; but still they are separate feelings, and may be separately considered.* It is the zeal only that I propose to examine. By patriotism, then, I understand desire for the aggrandizement of our country, more than attachment to its soil; a wish to elevate it, in some way or other, above other countries, simply because it is our country.

What, then, are the feelings which, in addition to love of country, enter into the composition of zeal for country? It is obvious that Love of Approbation will operate indirectly to render us anxious that what is connected with us should be honoured and respected by others; but it appears to me unquestionable that Self-Esteem is the main ingredient. A few words will be necessary to illustrate its power and office. The man in whom Self-Esteem alone is large, in whom this organ is unconnected in any great degree with the social faculties, has a high idea of his own importance as an individual, and this feeling will prompt him to separate himself from his fellows, and to endeavour to elevate himself as an individual to a still greater height above them; to surpass them, it may be in wealth, or in rank, or even in learning; and the means which he takes to attain this object will be just or unjust according to the degree in which he possesses or wants the moral faculties. But join to this Self-Esteem, I will say, Philoprogenitiveness; then, if he have children, he will consider them a part of himself, he will fancy them superior to all other children, and pride himself on their superiority;† he will be anxious for their advancement in the world, and he will seek this end, it may be by proper, and it may also be by improper methods. Instead of Love of Children, join to Self-Esteem the other feelings which I have mentioned as instrumental in producing love of country, then he

* *Patriotism*, love of country; zeal for country.—Johnson's Dict.

† See Phren. Journ. vol. i. p. 362.

will be proud of the society in which he mingles, the city, street, or even house in which he dwells, the profession which he follows, or the country of which he is a native. If he attach himself to a particular class of men, of this class, he, in his own opinion, forms an important part; he becomes in a manner incorporated with it; it forms a portion of himself; its importance is mixed up with his own; its dignity is reflected upon him; and therefore he is anxious for the promotion of the honour of this class, as a class; and this anxiety, let it not be forgotten, is perfectly compatible with utter indifference to the individuals who compose it. It was with this feeling as directed to a profession that Corregio was actuated when, after contemplating the works of Raphael, elated with the thought of belonging to the same class as the author of the glorious creations which he so much admired, he exclaimed—"I too am a painter!"* And I contend that it is Self-Esteem operating in the same way that renders us proud of the greatness of our country; we consider ourselves sharers in its greatness;† the feeling, in short, I consider to be the same in its essence, whether directed to a profession or to a country; whether it express itself in the words, "I too am a painter," or "I too am a Scotsman."

From these remarks, it will be obvious that I do not by any means consider zeal for country as the only result of this combination. It appears to me, that from the same set of faculties proceeds our peculiar attachment to every thing as connected with ourselves; and that, as the favourite object of this attachment will vary in different individuals, it may be manifested in our preference of the house or city in which we reside,—the class of society or profession to which we belong,—the religious sect of which we are members,—the country of which we are natives. The general result of this combination I understand to be a strong attachment to every thing connected with ourselves in consequence of that connexion; and that this is manifested in various ways, as the different faculties predominate in different individuals—in a reluctance, for example, to make new companions—in an exclusive and national spirit—in a desire to represent all greatness as belonging to our own sect, and to raise our own society or country to a greater height than those of others. This feeling seems to have been very acutely discriminated by Rousseau. We are told by Edgeworth, in his *Autobiography*,‡

* Tiraboschi rejects this story as "a popular and uncertain report, unworthy of the notice of an exact historian."—*Life of Corregio*, p. 180. Lond. 1823.—As the anecdote is here used only to illustrate an abstract principle, its authenticity is not a question of any importance.

† See *Phren. Journ.* vol. i. pp. 394, 407.

‡ *Nam quis est qui patriæ decora non arbitretur sua.*—Milton, *Defensio Secunda pro pop. Anglic.*

† Vol. i. p. 259.

that when he was in Paris, he went with his son to visit that great man. After two hours' conversation, he asked him his opinion of the boy. Rousseau replied, that his talents appeared to be very good, and to have been very well cultivated, but complained of his party-spirit. When asked the reason, he said that, whenever a fine horse or carriage passed the window, the boy observed, "That is English," or "That is from England;" and even of a pair of shoe-buckles he had remarked that they were of English manufacture. "This sort of party-prejudice," continued Rousseau, "if suffered to become a ruling motive in his mind, will lead to a thousand evils; for not only will his own country,* his own village, or club, or even a knot of his private acquaintances, be the object of his exclusive admiration, but he will be governed by his companions, whatever they may be, and they will become the arbiters of his destiny." Edgeworth adds, "This prophecy, as after-events proved, shewed his sagacity." Patriotism is the most remarkable, but not the only form in which this combination is manifested. I am persuaded that it has existed to a great extent in numerous individuals who were never heard of as patriots, because their faculties were exerted in a narrower and less conspicuous range. Thus Cajetanus, who was a Benedictine, was so much attached to his order, that he wrote a book to prove that the author of almost every work of merit was a member of it; if a great man had stayed a single night in a monastery of this order, it was quite a sufficient reason for his being made to belong to it; and, in fact, so far did he carry this spirit of monopolizing excellence, that Cardinal Cabellucci said of him that he would not be surprised if he should prove Simon Peter himself to have been a Benedictine. A portrait of this man is given by Spurzheim in his "Physiognomy in Connexion with Phrenology;" and, after noticing his Veneration as particularly large, he there observes, that his Love of Approbation and Self-Esteem being great, would make his own order appear in his eyes worthy of the highest admiration. Thomas Dempster, who was born in Scotland in the year 1579, a man of extraordinary erudition, was equally distinguished for the same propensity. He wrote an ecclesiastical history of Scotchmen; and in this book he enumerates as his countrymen many who were well

* The only bad tendency of Patriotism, according to Lord Kames, is, that it is apt to lead to too great partiality to our countrymen. In illustration, he gives the following anecdote:—The Duke of Montmorenci, after a victory, treated his prisoners with the greatest humanity. He yielded his bed to Don Martin of Arragon, sent his surgeon to dress his wounds, and visited him daily. That Lord, amazed at so great humanity, said one day to the Duke, "Sir, were you a Spaniard, you would be the greatest man in the universe."—*Sketches of Man*, vol. ii. p. 86. Ed. 1819. Do we not see the same spirit in religion? "C'est un honnête homme," said a Turkish governor of De Ruyter; "c'est grand dommage qu'il soit Chretien."

known to have been natives of England, Ireland, or Wales.* I think that there can be no doubt that these men displayed the very essence of patriotic feeling; and that if they had been soldiers, instead of being, the one a Benedictine monk, and the other a scholar and an antiquary, their names would have held conspicuous places in the roll of patriotic and glorious defenders of their respective countries.

If such, then, in reality be the nature of this feeling, such its origin, and such the scope of its operation, it may well afford us matter for wonder that it has so long engaged the admiration of the world, and that it has been made the subject of so much unmerited panegyric. If zeal for one's country be, as I trust I have shewn it to be, a mere natural feeling, a mere instinct, it is obvious that, at the very best, considered purely as a feeling, and apart from the conduct followed under its direction, it partakes of no moral quality whatever; and if, as a feeling, it has nothing reprehensible, so it has no claim on our approbation. All our feelings are natural, and while merely feelings they merit neither praise nor censure; but every feeling seeks its own gratification, and for this end it prompts to action, and the course of conduct pursued under its guidance may be justifiable or the reverse. Thus, we will say, a man loves his country, and is proud of its superiority, either real or imaginary; this is a mere instinctive, involuntary feeling, and of course no subject of moral judgment; but this love of country generates zeal to promote its interests, and this zeal leads to action for the attainment of its end, and this action may be of very different, may be of opposite kinds. If, on the one hand, he labour for the advancement of his country by rendering it free and happy, by promoting the study of the arts and sciences, by extending the blessings of education and religion, by useful and benevolent institutions, by the establishment of wise and merciful laws, by encouraging its commerce and manufactures, by rewarding and stimulating industry and virtue, by punishing and repressing indolence and immorality, then, indeed, this conduct is laudable. But if, on the other hand, he labour to promote the interests of his country by destroying those of others; if he toil to erect the fabric of his country's glory on the ruins of every other; if he increase its greatness by humbling and debasing other nations, by trampling on their rights, by repressing their efforts for the attainment of liberty and improvement, by punishing as treason and rebellion their indignant opposition to oppression, by open violence and secret treachery; if he protect its manufactures and commerce by depressing those of others; if he act thus, then

* See Lempriere's Biograph. Dict. Gorton, in his Life of Dempster, lays this peculiarity to the charge of carelessness; but in his appendix, containing a list of biographical works, he assigns the reason which I have here mentioned.

indeed his conduct is unjust and dishonourable, and merits the strongest reprobation. But be it observed, the feeling in both cases is exactly the same; it is in both cases a love of country and desire for its advancement, and the conduct which it prompts differs only as it is directed or not by the higher faculties: the feeling itself is neither good nor bad, but purely neutral. Considered, then, even in this most favourable point of view, and apart from the most probable tendency of the feeling, it is an obvious absurdity to lavish praise on a mere instinct, which in itself is neither laudable nor censurable, and which may lead to action of either kind.

This principle, however, has been too generally forgotten. One would almost think there were a magical influence in the word Patriot, so instantaneously does it excite in men the idea of every thing honourable and good, even when they are utterly ignorant of the character and history of the individual to whom the title is applied. Patriotism, in itself, has been represented as the highest moral virtue; as the surest road to the admiration of our fellows, and the favour of our Creator; as the safest and most certain way to present glory and future happiness. Death on the field of battle, fought for the aggrandizement of one's country, has been considered in all times the noblest destiny to which a human being could aspire *, and an infallible passport to eternal felicity.

What, then, is the cause of this extravagant admiration? It is simply this, that patriotism has been confounded with other feelings and higher motives. It has been identified with domestic attachment, with benevolence, philanthropy, and self-denial, till its real nature and origin have been forgotten. When a nation's power and wealth have been increased, and its dominions extended, it is but natural that men, considering such things as the greatest blessings, should feel gratitude to the individual to whose exertions they owe their enjoyment, and that they should attribute to him only the very noblest motives. When they see a man rejecting the temptations of pleasure and indolence, submitting to the greatest hardships and privations, exposing himself to danger, and all this for the glory of his country, they think that therefore he forgets his own; they think that there is an entire sacrifice of self, that there is nothing but disinterested labour. Thus what is too often but extended selfishness, has been represented as moral virtue and a solemn duty. The grandeur with which this feeling was in early times invested has been preserved through ignorance or disregard of

* Τιθῆμιναι γὰρ καλὸν τοῖς στρατηγοῖσι πεισθῆναι,
ἀλλ' ἀγαθὸν περὶ ᾧ πατρίδι μαχεῖσθαι.

Tyrtæus, El. 4.

"Dulce et decorum est pro patria mori."—Hor. Od. 3. 2.

essentially a desire to elevate our own country above others, to establish and maintain its superiority; means it discriminates not, and its end is equally attained by the depression of others or by the exaltation of ourselves. From this feeling, accordingly, have proceeded in every age the great majority of wars carried on for the aggrandizement of a party; and every wish even of benevolence being confined within the limits of certain territories, each nation seeking exclusively its own greatness, their rival spirits of patriotism have set the world on fire. It is therefore much to be regretted that a feeling which has a direct tendency of this nature should be confounded with higher principles; for not only have men invested this feeling with a borrowed greatness, and, dazzled by its brightness, shut their eyes to its true nature, but, concluding patriotism to be in itself an admirable thing, they have consecrated under its name the vices with which it has been most frequently associated, and to which it directly leads. They have imagined that there is something praiseworthy and sublime, something allied to virtue, in the very feeling of zeal for country; the conduct to which it has led has been less frequently just than unjust, oftener inconsistent than compatible with mercy; but the feeling, the object in view, sanctified the means for its attainment; it has not only excused but even hallowed murder and rapine; it has weakened and darkened men's moral sense. This principle has called forth universal reverence; philosophers have inculcated it, poets have consecrated and immortalized it. This principle has been deified, a shrine has been erected to its honour in every heart, and on its altar men have sacrificed their ideas of integrity and benevolence. If committed under its influence, violence becomes valour, treachery becomes wisdom and salutary caution, oppression is the quelling of unjust opposition.* This principle is certainly an improvement on the spirit of pure selfishness, which confines its wishes and exertions to its own gratification. But its superiority to selfishness is not greater than its inferiority to benevolence, and of this feeling as a rule of action it has too long usurped the place. If the principle which I laid down in the introduction to this paper be correct, that, in exact proportion to the benefit resulting from an equal discharge of the duties of all

* See Machiavel's Discourse on the first Decade of Livy, l. iii. c. 41, where he maintains, that when the safety of our country is concerned, there ought to be no consideration taken of just or unjust, pitiful or cruel, honourable or dishonourable, but that course to be taken which may promote its interest; also Thuanus' Dedication to Henry IV., prefixed to his History; or Collinson's Life of Thuanus, p. 430. Ed. 1807. "When theft was publicly honoured and rewarded at Sparta, it was not because theft in itself was reckoned a good thing, but because patriotism and dexterity, and those services by which patriotism might be supported, were reckoned to be good things."—*Chalmers's Bridgewater Treatise*, vol. i. p. 90.

the relations of society are the evils which arise from the exaltation of any one to the exclusion or injury of the rest, then we may expect that the mischievous consequences attending the predominance of patriotism, and the too high place assigned to it among motives of action, are neither few in number nor trifling in importance. They are indeed too numerous to be treated in detail in any single essay. Perhaps, however, they may all be comprehended under two heads; and, as I have already shewn, that the discharge of all our obligations to our family, to our country, and to mankind, is calculated to affect the happiness, first, of the individual, and, secondly, of the race; so now, for the sake of clearness, using the same division with regard to the evils attending the exaggeration of any one, I proceed to explain how, in consequence of men having established the advancement of their country as the highest moral duty, 1st, the interests of the individual have sunk into comparative neglect; and, 2dly, the interests of the race have been disregarded for those of a nation, the good of the whole has been thought a less important object than the advancement of a part.

(To be concluded in our next Number.)

ARTICLE VII.

COMPARATIVE MERITS OF THE MENTAL PHILOSOPHY OF THE SCHOOL OF REID AND STEWART, AND OF THE PHRENOLOGISTS.

It were needless to attempt to conceal, for the reader could not fail to perceive, that the following letters regarding the comparative merits of the Mental Philosophy of Reid and Stewart, and of Gall, Spurzheim, and Combe, passed between *Academicus* and *Consiliarius* on occasion of the election to the Chair of Logic in the University of Edinburgh in July 1836; when the claims of Sir WILLIAM HAMILTON were rested on the former, and those of Mr COMBE on the latter philosophy.

ACADEMICUS TO CONSILIARIUS.

12th July 1836.

My anxiety in the matter is not for any individual, but for the credit of the University, and especially for the support and extension of the mental philosophy of Reid and Stewart, of which I am a sincere admirer, and a zealous though humble disciple, and which I have done my best to study carefully, and think I understand, although I have no pretensions to extensive metaphysical reading: I believe M. Cousin to be quite correct in asserting two things, 1. That the

doctrines of Reid and Stewart, or what is called the Scotch system of mental philosophy, is now generally known and highly esteemed, and widely extending its reputation, abroad; and that, in fact, there is little or no dispute on the Continent about the truth and importance of the leading principles of that philosophy, the only question being, whether or not the analysis of our mental constitution can be carried farther than it has been by them. 2. That Sir William Hamilton appears, from his writings, to be a learned, able, and zealous disciple of that school, well qualified to compare its doctrines with, and to defend them against, all other metaphysical systems, ancient and modern.

It is my own sincere conviction, that the leading principles of Reid and Stewart are the only safe and sure foundation on which the study of mental philosophy can be conducted, that they must be the guide of all truly scientific inquirers in this branch of philosophy in all time coming,—and that they constitute the highest claim to scientific distinction, of which Scotland can boast. Although I know you to be an admirer of Phrenology, I will take the liberty of saying, that if the whole extent of the doctrines of phrenological writers were established, they would merely *take their place* as a part of the system of mental philosophy of which those authors, if not the original founders, are the chief supporters; and that the idea of Phrenology being a *substitute* for their philosophy, is quite a delusion. Their philosophy is strictly the Inductive Logic applied to the human mind, and limited in the extent to which it leads, by the constitution of the mind itself. If Phrenology can be established, it must be by facts and induction from them, and will be simply an *addition* to the facts which have been already observed and generalized; it may render advisable some alteration of their arrangement, but cannot affect their truth or value.

I believe that among those who have really studied metaphysics of late years (and who are more numerous on the Continent than in this country), these opinions of the merits of Reid and Stewart, and of the service which they did to science, by placing mental philosophy on its true basis, and clearing away the incumbrance of former theories and sophistries, will not be thought to be exaggerated. I think it is also generally admitted, that Dr Brown, able and amiable as he was, is not so sound or safe a guide in *metaphysics*, and that when he differed from them (particularly from Reid), he has retarded rather than advanced the progress of the science. One of Sir William Hamilton's papers in the Edinburgh Review seems to me to make this point pretty clear.

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CONSILIARIUS TO ACADEMICUS.

14th July 1836.

I am satisfied that your letter proceeds only from the most amiable motives. It needs no apology: it does me honour. Indeed, had you not condescended to argue against my opinions, I would have kept them to myself. But I assure you, that, although not without the feelings of attachment natural to an old disciple of the Edinburgh School, I am convinced that the philosophy of Reid must give way before the discoveries of Gall, and that a stable mental philosophy can only be based on phrenological principles—on the analysis of mind sketched out by him—since improved—and still in the course of being improved. I shall put my reasons on paper at greater length, but must take a little time.

19th July 1836.

According to promise, I shall now, as briefly as possible, yet I trust intelligibly, state my reasons for differing from you in regard to Reid and Stewart's philosophy, and for thinking that the credit of our University is so far from being bound up with that system, that it would, on the contrary, be signally promoted by adopting a mental philosophy founded on the discoveries of Gall. It may appear bold in a person situate as I am to venture to differ on such a subject from you; but after having been rather an attentive pupil of Finlayson and Stewart in 1799 and 1800, and after reading the best treatises in our language, I was led many years ago, by intimacy with Mr Forster, Dr Leach, and Dr Spurzheim, to examine Gall's system with considerable care; and I have also availed myself of the admirable writings and lectures of Mr Combe. Now, if it so happen that you have not bestowed attention on the new doctrines, and have not examined the evidence on which they are founded (which I suspect is the case), then, inferior as I feel myself in all other respects, I have here the advantage of you.

In my humble opinion, then, Reid and Stewart's philosophy is altogether unsound in its basis. It rests on observations made by each individual on his own consciousness. Now, consciousness gives us no intimation of any thing in mental philosophy, except the *state* of our *own* minds at the moment when we attend to our inward condition. Some of the consequences of this important fact may here be traced.

1. We cannot thus discover the existence and functions of the mental organs, because Consciousness does not indicate their presence in mental operations.

2. We cannot thus distinguish primitive faculties from mere

modes of action of the faculties ; i. e. if we had only Consciousness to guide us in regard to the philosophy of the external senses, we should be led to describe Taste, Smell, Sight, Hearing, and Touch, all as modes of action, or modes of impression, of the mind generally, and should never discover that they are separate and distinct senses. In like manner, in regard to the internal faculties, the school of Reid mistakes Memory, Imagination, Conception, and Perception for primitive powers ; while the most indisputable facts prove that these are only modes of action of the real faculties, ascertained by the school of Gall, and called in phrenological language Locality, Colouring, Individuality, &c. ; each having a distinct organ, and there being, of course, many kinds of memory.

3. In consequence of this radical defect in the basis of Reid's philosophy, it can never, I apprehend, become useful, or afford the foundation for any sound logic. For example, if a metaphysician of the Reid school were rather deficient in organs of Conscientiousness, he might be apt to deny the existence of a moral sense ; and so of others. Further, in consequence of reflecting merely on his own consciousness, he must remain totally ignorant of many of the active impulses, such as (if you will excuse me for again using phrenological language, which I find the most precise), Combativeness, Destructiveness, Acquisitiveness, Secretiveness, which strongly prevail in the world of real life, but which may possibly never indicate themselves to the philosopher in the calm retirement of the closet. Hence, such metaphysicians can never, by their mode of investigation, arrive at a correct knowledge of all the faculties ; for each philosopher will naturally be inclined to deny the existence of faculties in the organs of which he may himself happen to be rather deficient.

4. Reid's philosophy never can give an explanation of the differences between the mental capacity of one man and that of another, because it is confined in its basis to the mind of *the individual* who studies it.

5. It cannot possibly explain the phenomena of insanity, because it totally overlooks the organs, by the diseases of which insanity is occasioned, as now admitted by many eminent physicians and physiologists of the greatest experience in asylums.

6. It cannot be applied to the elucidation of the causes of the tendency of some individuals to one pursuit and of others to other pursuits ; of some to mathematics and others to painting, of some to hoarding and others to profuseness, &c. ; because these differences depend on differences in the relative size and on the activity of certain organs, of which that philosophy takes no cognizance.

7. A sound logic ought to expound the whole faculties of

man, both affective and intellectual, the relations subsisting between them and the external world, physical and mental, and the method by which they may be best applied in the attainment of good, morally,—and of truth, intellectually. The philosophy of Reid can never accomplish these ends; because it never reaches the primitive faculties at all, but deals in mere generalities about their modes of action.

In consequence of the imperfect analysis of the mind thus presented by this philosophy, we would never have been led to think of *educating* the faculties, feelings, and affections, as is now, by the lights of Phrenology, successfully done from the earliest ages in infant schools, up to grammar schools where the teachers have had the good fortune to become acquainted with Phrenology.

I entirely dissent from your conclusion, therefore, that Phrenology will merely enlarge the sphere of the philosophy of Reid and Stewart. According to my views, Phrenology will rather sweep that philosophy away; and if we get something more useful, why should we deplore its being so swept away? It will now,* however, get trial for a few years longer in our University; but it will be “weighed” by the students of each successive season, and more and more “found wanting.” When I consider the light which phrenological books are throwing on the causes and cure of the malady above alluded to (so interesting in any discussion about Mind), on education, on criminal legislation, I clearly perceive the superiority of the new philosophy, and wish it all success. It is perhaps rather a low consideration, but it is an important one, that the writings of Dr Reid and Mr Dugald Stewart are no longer in demand in this country, while new editions, of thousands, of Mr Combe’s works are in constant request.

A friend lately called my attention to a clever article in the third volume of the Edinburgh Review, the style of which seems to indicate the then editor as the author. It exposes in a happy strain the futility of that very philosophy which Lord Jeffrey, Professor Napier, and you, seem now so anxious to maintain in the University. At page 269 he says, “In metaphysics, certainly, knowledge is not power, and, instead of producing new phenomena to elucidate the old, by well combined and well conducted experiments, the most diligent inquirer can do no more than register and arrange the appearances, which he can neither account for nor control. We feel and perceive and remember without any purpose or contrivance of ours, and have evidently no power over the mechanism by which those functions are performed. We may describe and distinguish

* Sir William Hamilton having been elected to the Logic Chair on the 15th July.

these operations of mind, indeed, with more or less attention or exactness, but we cannot subject them to experiment, nor alter their nature by any process of investigation. We cannot decompose our perceptions in a crucible, nor divide our sensations with a prism; nor can we, by art and contrivance, produce any combination of thoughts or emotions, besides those with which all men are provided by nature. No metaphysician expects by analysis to discover a new power or create a new sensation in the mind, as a chemist discovers a new earth or a new metal; nor can we hope, by any process of synthesis, to exhibit a mental combination different from any that nature has produced in the minds of other persons."

Mr Stewart endeavoured to answer this in the Dissertation preliminary to the Philosophical Essays; but he failed: for such objections are insuperable against him. When, however, we study the mind by means of the organs, not one of the objections applies. By observing organs (as was suggested to me by the friend who pointed out the passage) we really do discover new faculties; and, by ascertaining their spheres of activity, and bringing several of them to act together in a new direction and in a new combination, we may be said actually to give rise to new products in mental manifestation.

Allow me only to add, that, in spite of Sir William Hamilton's review, my late esteemed friend Dr Thomas Brown seems to be admitted by all who are not absolute devotees to Reid and Stewart, to be superior to both these authors. To descend once more to the shop (for really the sale of a work is the *experimentum crucis* of successful authorship), you will find that Brown's posthumous Lectures are vastly more in request than Reid's Intellectual and Active Powers and Stewart's Philosophical Essays.

ACADEMICUS TO CONSILIARIUS.

26th September 1836.

I have not forgotten my promise to state to you my reasons for the opinion, in regard to the pretensions of Phrenology, which I formerly took the liberty of expressing to you; but different circumstances have hitherto prevented my performing it. Fortunately we can now consider the question independently of any practical application, and therefore with a philosophical coolness and composure.

I presume I need hardly say, that I do not regard the propositions—that the brain is the organ of thought,—that all manifestations of the human mind, in this state of our existence, depend on certain conditions in the state of the brain,—and that all physical causes which influence the mind, do so by af-

fecting the condition of the brain,—as Phrenology. These propositions are a part of *physiology*. They formed part of the physiology of Haller, before Gall, or Phrenology, was heard of; and the additions, and more precise form, given to them of late years,—the restriction of the office of the brain proper to the simply mental acts,—of the medulla oblongata to sensation, and to the excitement of voluntary muscles,—and the discovery of the office of the cerebellum in regulating muscular motions,—have been the work of physiologists, of Le Gallois, Wilson Philip, Magendie, Flourens, &c., not of phrenologists.

The peculiar doctrine of the phrenologists I take to be this: That the brain and cerebellum (chiefly, however, the former) consist of a congeries of organs, to each of which is assigned the office of supplying the material conditions necessary, either for some particular mental act, or frequently for the mental acts which relate to some particular object of thought; and that the offices thus assigned to the different organs composing the brain have been, for the most part, ascertained, chiefly by observations on the forms of the head of different persons, and corresponding peculiarities of characters.

That the different portions of the brain have different offices assigned them in connection with the different mental acts, seems to me highly probable, and the inquiry into these I think very laudable, and strictly philosophical: it is distinctly recommended by Lord Bacon, and has been attempted by different physiologists and pathologists, but with little success. It seems to me, that there is strong probability in favour of the general opinion, that the strictly intellectual acts are connected with the fore part of the brain, and the sentiments and feelings, and propensities to action, rather with the upper and back parts of it. As to the more minute appropriation of the different parts of the brain, either to different mental acts, or to mental acts on different subjects, I confess that I have not studied the evidence adduced on that subject by Gall and Spurzheim, and their followers, so carefully as, perhaps, I ought to have done—on this account, that all observations made in the way to which they chiefly trust, viz. by measurement of skulls, and comparison of these with the known characters of their owners, have always appeared to me to be liable to *very considerable fallacies*, affecting both the *physical* and the *mental* parts of these observations; and, therefore, to be inadequate to the purpose of fixing the use of the different portions of the brain, *unless supported and confirmed by other observations*. I can conceive them to derive that support and confirmation from three sources,—from comparative anatomy,—from the results of experiments on animals,—and from the effects of injury or

disease of individual portions of the brain in the human body. But, after taking some pains in the inquiry, I have come to the conclusion, that *from none of these sources of information is there any confirmation* of the special appropriation of the different parts of the brain to the different acts of mind which the phrenologists consider as ascertained. Indeed, as to comparative anatomy, you must probably be aware, that the result of observations in that science goes completely to disprove the idea, that any fixed relation exists in the different tribes of animals, between the degree of intelligence that can be observed in them, and the size, or complexity of structure, or indeed any circumstance of structure, that has yet been pointed out of their brains. These things being so, I think I have come fairly and philosophically to the same conclusion as Magendie on the merits of Phrenology; viz. that this study, perfectly innocent, and highly laudable, has, nevertheless, *as yet*, yielded no results as to the office of the different portions of the brain, on which reliance can be placed.

I have repeatedly proposed to myself a farther question, which is, in fact, that in which I have the misfortune to differ from you, and which is quite separate from the question as to the merits of Phrenology; viz. Taking for granted that the offices of the different portions of the brain, as laid down by the phrenologists, are all correctly stated, are they entitled, by having established these facts, to assume to themselves the credit of sweeping away the old Science of Mind as taught by Reid and Stewart and others,—or are their pretensions, even on that supposition, inadmissible? On this question I have formed a decided opinion, and shall endeavour, in a few words, to give you my reasons.

The leading principles of the Mental Philosophy of Reid and Stewart, so far as I understand them, are just these:—1. That the constitution and powers of the human mind can only be ascertained by attentive observation of its actual operations, which observation must be, for the most part, made by each individual studying the subject on the acts of his own mind, and the results of which must be generalized and reduced to laws of nature, on the same principles on which the determination of the physical laws of nature, by the process of induction, is conducted; and, 2. That in thus generalizing the facts of which we are conscious in our own minds, and which we infer from observation of the actions prompted by other minds, we must necessarily arrive at certain ultimate facts, of which we can give no other account than that they are the will of the Author of our nature, and which stand in the same relation to mental science as the laws of motion or the laws of chemical affinity to physical science; and particularly, that among those ultimate facts in the human constitution, we must admit the exist-

ence, and recognise the authority, of certain fundamental laws of belief, of which we can give no other account than that they are a part of our mental constitution, always present and active in any individual of sound mind, and leading us to believe certain things only "because we cannot help it."

These being the objects and limits, and, as it seems to me, the rational and philosophical general view or outline of the science of Mind as laid down by Reid and Stewart (and indeed by many previous authors, but I believe more cautiously and correctly by them than any others), you assert, that all the principles which can be ascertained and established in this way, must be superseded and "swept away" if the system of Phrenology is established; that is, if it be ascertained that every act of mind, or that all the acts of mind which relate to any particular object of thought, have their residence in a particular portion of the brain.

I assert, on the other hand, that this discovery would be merely an addition to our knowledge of the mind, rendering advisable, probably, a change in the arrangement by which a part of the science is taught, but that the science would still consist of facts, ascertained by the methods laid down by Reid and Stewart, and generalized, and their investigation limited according to their principles, and would therefore be substantially the same science, with such additions only as were clearly within their contemplation.

As the simplest way of illustrating this position, I shall take, in succession, the different arguments against the system of Reid and Stewart with which you have favoured me.

You say, in general, that the system of Reid and Stewart "rests on observations made by each individual on his own consciousness. Now consciousness gives us no intimation of any thing in mental philosophy except the state of our own minds at the moment when we attend to our inward condition."

Here I would observe, 1st, That although it is true, as I stated above, that facts in the philosophy of mind must be ascertained, *for the most part*, by observations of each individual on his own mind, i. e. by attention to his own consciousness; and although all other observations, applicable to the subject at all, must always bear reference to the intimations of consciousness, and are admissible as a part of the science, only inasmuch as they indicate what must be the consciousness of *some mind*,—yet it is quite a mistake to suppose that the mental philosopher, according to Reid and Stewart, is *confined to observations on his own mind*. And to prove this I need go no farther than to a few sentences in Mr Stewart's Preliminary Dissertation, to which you have yourself referred.

"To counterbalance the disadvantages which the philosophy of mind lies under, in consequence of its slender stock of expe-

riments, made directly and intentionally on the minds of our fellow-creatures, *human life exhibits to our observation a boundless variety, both of intellectual and moral phenomena, by a diligent study of which we may ascertain almost every point that we could wish to investigate, if we had experiments at our command.*" "Hardly, indeed, can any experiment be imagined which has not already been tried by the hand of nature,—displaying, in the infinite varieties of human genius and pursuits, the astonishingly diversified effects resulting from the possible combinations of those elementary faculties and principles, of which every man is conscious in himself. Savage society, and all the different modes of civilization,—the different callings and professions of individuals, liberal or mechanical,—the prejudiced clown,—the factitious man of fashion,—the varying phases of characters from infancy to old age,—the prodigies effected by human art in all the objects around us, laws, government, commerce, religion,—but, above all, the records of thought preserved in the volumes which fill our libraries,—what are they but experiments by which Nature illustrates, for our instruction, on her own grand scale, the varied range of man's intellectual faculties?"—*Preliminary Dissertation to Phil. Essays*, p. 45. It appears clearly from this, that in Mr Stewart's view of the subject (and the same is as easily proved as to Dr Reid), although the foundation of the science, and the standard to which all other observations must be referred, are to be found only in the study of our own minds; yet, by the simple process of inferring, from the conduct or language of another man, what must be the intimations of his consciousness, the whole book of human life is laid open for the instruction of the student of mental philosophy, and, therefore, that your arguments, in so far as they are founded on the supposition of his being restricted to the study of his own mind, fall to the ground.

2d, It being understood that inferences as to the mental acts of others, as well as consciousness of mental acts in ourselves, are the legitimate foundations of mental science, according to Reid and Stewart; I beg to ask, what other foundations has, or can have, the mental science of the phrenologists? Such consciousness, and such inferences, must be, I apprehend, the very essence of all the evidence by which they establish that any kind, or any direction, of mental acts is connected with any part of the brain; without such mental evidence, the mere inspection of the brain would be, I apprehend, a very barren study. With such mental evidence (where truly obtained), the study of the offices of different parts of the brain becomes a part of the study of the mind, according to the methods of Reid and Stewart; and, if successful, an *addition* to their system, formed on their principles,—not a substitution of another.

I shall now notice in succession your more specific arguments.

1. You say That we cannot, by observations made by each individual on his own consciousness, discover the existence and functions of the mental organs, *i. e.* of the portions of brain concerned in the different mental acts. This is answered by what I have already said, that the mental philosophy of Reid and Stewart is not, by any means, confined to those observations. And I freely admit, that, if the connexion of individual portions of brain with particular acts of mind were ascertained, (which can only be by observations partly made, not indeed on our own consciousness, but on the consciousness of others, inferred from their words or actions,) we should have a manifest addition to our knowledge of the mind, but an addition as *strictly within the province of the mental philosophy of Reid and Stewart* as are the long discussions (particularly in the works of Reid) on the material conditions necessary for vision, and for the other senses.

2. You say, That we cannot, by the methods of Reid and Stewart, “distinguish primitive faculties from mere modes of action of the faculties,” *e. g.* that “the school of Reid mistakes Memory, Imagination, Conception, and Perception for primitive powers; whereas the most indisputable facts prove that these are only modes of action of the real faculties, ascertained by the school of Gall, and called Locality, Colouring, Individuality, &c.; each having a distinct organ, and there being, of course, many kinds of memory.”

Now, this appears to me a mere verbal misapprehension. Supposing it ascertained, that portions of the brain are appropriated to each of the objects of thought,—one to Forms, one to Colours, one to Weights, one to Measures, &c.—and that each of these portions furnishes all the conditions necessary in order that forms, or colours, or positions, &c. may be *observed*, may be *recollected*, may be *imagined*, &c., you may, no doubt, apply to each of these portions of the brain, or to all the acts of mind connected with it, and exerted upon any such object of thought, the name of a Faculty. But, in so doing, you must be aware, that you use the term in a sense considerably different from that in which it is used by Reid and Stewart, and other authors. The term Faculty, as applied to perception, conception, memory, imagination, does not mean separate tangible existences, and is not applied to the objects of thought; it is the expression of general facts or laws of mind observed, distinguished, and generalized, in regard to the actual *operations* of our minds. By taking the term and applying it to another use, to designate a different thing, you merely make an *innovation in language*, (and such innovations are always to be deprecated in

science). You do not invalidate the observations on which the previous generalizations were founded, nor shew that these generalizations were wrong, and therefore you do not become entitled to sweep away these and substitute others.

It may be quite true, for example, that there is a portion of the brain assigned for Forms, and that, when that portion is alive and healthy, it enables us not only to perceive and distinguish forms, but to remember them, to imagine them, &c. ; and you may, if you please, give to that portion of the brain, or to all the exertions of the mind, dependent on it, and applied to the subject of Forms, the name of the Faculty of Form. But it is not the less true, that the act of mind which perceives forms, is palpably distinct from that which remembers forms or imagines forms ; and that each of these acts is just similar to acts performed by the mind in regard to other objects of thought ;—that we perceive, remember, and imagine colours, sounds, numbers, and many other objects of thought, as well as forms. You do not study the constitution of the mind, unless you attend to those obvious distinctions *among the acts of mind themselves*, as well as to those *among the objects* on which they are performed. Whether we are to arrange the study of the mind according to the different kinds of acts it performs, or (as the phrenologists in many, not in all cases, do), according to the objects to which these are directed,—whether we are to treat, *e. g.*, of memory as an act of mind, which may be applied to many different objects, or of “many different kinds of memory” under the different objects to which it may be applied,—is a question of arrangement, or of taste in individuals, or of convenience for other purposes ; but those who follow the one arrangement are strangely mistaken, as it seems to me, if they suppose that in so doing, they sweep away the distinctions on which the other is founded, or the generalizations to which it leads. In my humble opinion, they might just as well talk of sweeping away the facts by which these obvious distinctions are suggested.

3. You say, that a philosopher of the school of Reid cannot have a comprehensive view of the human mind, because he will be inclined to deny the existence of faculties in the organs of which he may chance to be deficient ; and you instance particularly Conscientiousness, Combativeness, Destructiveness, &c. I believe, that no philosopher, whether of the school of Reid or of any other, can have just views of the constitution of the mind, who is not conscious of these and other motives to action existing occasionally in himself ; but I have already shewn, that the philosopher of this school is not restricted, any more than any others, to the facts made known to him by *his own* consciousness, and thus set aside this argument.

4. The same answer applies to your next argument, that Reid's philosophy gives no explanation of the differences between men in mental capacity, because it is confined in its basis to the mind of the individual who studies it. That this is a mistaken notion of the basis of Reid's philosophy, I have already shewn. At the same time I willingly admit, that the differences of mental constitution in different individuals, form a branch of the study of the mind which has been more fully illustrated by some phrenologists than I believe it ever was before. But it was not overlooked by Reid or Stewart; it is illustrated and is susceptible of illustration, only by observation of facts which imply the consciousness of individual-minds; it is therefore strictly within the province of the mental philosophy of these authors, and any advances made in this branch of the science are made clearly in the way of *addition*, not of *substitution*.

5. You say, that the philosophy of Reid "cannot possibly explain the phenomena of insanity, because it overlooks the organs, by the diseases of which insanity is occasioned." If you mean, the phenomena of general insanity, or delirium, of which the chief characteristic is the faith reposed by the mind in whatever it conceives or imagines, as if it were a reality, I am really not aware of any *explanation* of that aberration of the mind which Phrenology offers. The only explanation I have ever seen of it is that given by Mr Stewart, who shews its dependence on the same mental law by which we put temporary faith in our dreams, or in fancied scenes conjured up by poetry or romance; which, so far as it goes, seems to me quite satisfactory, although not at all phrenological. But I presume you mean to refer to cases of *partial* insanity, which certainly often affects the acts of the mind on particular objects of thought only; and I willingly admit, that if it were ascertained that particular portions of brain are concerned in the mental acts which relate to such objects, and that these portions are diseased in cases of partial insanity on these subjects,—we should have a very fair explanation, not properly speaking of the nature of the change in the mental acts which constitutes the insanity, but of the circumstance of the insanity being partial. I am sorry to say that, after taking some pains on the subject, I cannot agree with you in thinking, that the cases on record of partial insanity with partial disease of the brain, afford any confirmation of the phrenological division and allocation of the mental faculties. But if it did, it would only furnish an *addition* to our knowledge of the mind, studied according to the methods of Reid; and I cannot see that it would invalidate any one fact in our mental constitution, which he has observed, nor one inference which he has drawn.

6. You say that the philosophy of Reid "cannot be applied to the elucidation of the causes of the tendency of some individuals to one pursuit, and of others to another." I answer, this difference is a *fact* in the constitution of the mind, open to the observation of all, made known by the methods of inquiry followed by Reid and recognised by him and his followers; although, as I have stated, not so fully illustrated by them as perhaps it might have been. Any additional illustration of this fact, or any explanation of it, *if obtained by the method of induction*, will necessarily be an addition to the philosophy of Reid on the subject, and an *addition* of the kind which he continually says he expects his philosophy to receive, in the progress of time; but how it should ever be a substitute for it, I confess myself unable to comprehend. All the facts which he has observed, or which any one else has observed, as to differences in the propensities, or sentiments, or capacities of individuals, will remain untouched by the establishment of the additional fact (supposing it established), that each peculiarity of disposition is connected with, and dependent upon, the development of a particular portion of the brain.

7. Your last statement, that the philosophy of Reid "never can expound the whole faculties of man, their relations and their applications, because it never reaches the primitive faculties at all," turns on the same ambiguity in the use of the word *faculties*, which I have already remarked. If you use the word in a new sense, certainly the facts which he had collected and arranged under the word, as in the case of Perception, Conception, Memory, &c., will not come under it in that new sense; but they are still facts, and unless you can shew that they have been inaccurately observed, or erroneously classed together, you cannot prevent them from forming a part of the philosophy of mind.

This applies to those faculties, described by the phrenologists, which are not to be found in the description of our mental constitution, given by Reid and Stewart, and which are distinguished, not by the nature of the mental acts, but by the objects to which they are applied. But many of the faculties of the phrenologists, (particularly of those which have the title of Sentiments), are the same mental acts or feelings which are described by Reid and Stewart, chiefly under the head of Active and Moral powers; *i. e.* the Self-Esteem of the former, is the Self-Love of the latter,—the Love of Approbation of the former, is the Desire of Esteem of the latter, &c. Now, in such a case, how you should "sweep away" all that had been formerly ascertained, by consciousness in ourselves, and by observation of the conduct, and inference as to the feelings, of other men, in regard to any such sentiment, merely by making the *additional*

observation, that its intensity is proportional to the size of a certain portion of the brain—I own exceeds my comprehension.

Considering the principles of Phrenology, if they shall be established, simply as *additional facts* in the natural history of the human mind, I should rejoice if I could anticipate as much benefit to our species from them as you do; and I can easily see that some benefits would result. But I think these would be, chiefly from their leading to careful discrimination of characters; which discrimination is in our power independently of Phrenology (*i. e.* independently of any examination of heads and of any inferences as to the portions of brain concerned in them): it is daily practised in the world; and, indeed, its being practised is quite essential to any evidence being obtained in favour of any one principle in Phrenology; and, therefore, I cannot help indulging a little in the philosophical state of doubt, whether any such *peculiar* advantages as you and many others expect, will ever be derived from combining the discrimination of characters, as made known to us by language and action, with the measurement of organs, by examination of skulls. And although I am aware that phrenologists suppose that the schoolmasters, and the keepers of lunatic asylums, who have been educated by them, are superior to all other men of their professions; yet, I do not think this is by any means so generally admitted as to furnish decisive evidence of the practical usefulness of the study.

Neither can I agree with your friend who thinks, that “by observing organs we really do discover new faculties.” On the contrary, I doubt very much whether you can know what is an organ (phrenologically speaking,) otherwise than by observing the coincidence of its external sign with some mental faculty, propensity, or sentiment, already known.

I beg to say farther, that I do not consider the present popularity of phrenological books, and the greatly diminished demand for the works of Reid and Stewart, any evidence of the scientific merit and demerit of either. In the first place, you mention that Dr Brown's book is at present popular; and the same is true of Dr Abercrombie's book. Now, much of the best parts of Reid and Stewart are incorporated into them; and if they had not preceded these authors, their works could not have been written. Their general view of the objects of mental science is just the same as that of Reid and Stewart; and although I believe Dr Brown was right in some speculations when he differs from Stewart, I doubt much whether he has in any place, in point of doctrine, improved upon Reid. That he did not, in some important points where he differed

from Reid, I think Sir William Hamilton distinctly shewed in one of his articles in the Edinburgh Review.

Secondly, a very great part of the writings both of Reid and Stewart, is occupied in refuting the errors of former metaphysical authors, and so putting the study on its right basis. This was indispensable for the future progress of mental philosophy; but when the refutation and correction of former errors is generally regarded as satisfactory, the interest of the work containing it is of course greatly diminished.

Lastly, it is only a small number of men, in any age, who have a taste for mental philosophy, or indeed for any works of abstruse science. No great number of editions of Bacon's *Novum Organon*, or of Newton's *Principia*, are necessary, to maintain these works in their station at the head of modern science. Excepting in the case of a literary controversy, attracting public attention, I apprehend that a book on intellectual or moral philosophy going in a few years through many editions, may be safely set down as a very superficial book. Of a class of 100, either in Greek, Logic or Mathematics, how few turn out to be zealous or eminent in any of these studies; but the mental labour which they undergo is useful for all, and for the few who understand to turn their elementary instruction to account, it is of the utmost importance that the teacher should be thoroughly master of the subject, and qualified to guide them through the difficulties, and warn them of the dangers, in their way;—and in mental science I am thoroughly persuaded that no man is so qualified who is not imbued with the spirit of the philosophy of Reid and Stewart.

It was this conviction which made me feel justified in exerting such little influence as I was told I might chance to possess, in favour of the candidate for the Logic Chair who had given the best evidence of being thoroughly instructed in these principles; and the same feeling will always prompt me to oppose by all fair means (when any may be in my power) the introduction into the University of any men, (however much, individually, I may respect them or their supporters,) who profess that they have a *new method* of studying and teaching mental science, and that they are to “sweep away” the philosophy of Reid and Stewart. The pretensions of phrenologists in this respect have probably attracted to their system a greater share of public attention than it would otherwise have obtained; but I am convinced they have been a main cause of the suspicion and distrust with which it is regarded by a very large proportion of the men of science and learning in this country. In the end, such portions of truth as may be ascertained to belong to Phrenology, will make their way, notwithstanding the difficulties which the injudicious pretensions of its present sup-

porters have raised in the minds of many well-informed and truly scientific men ; but I much suspect that these pretensions will ultimately be fatal to the personal reputation of most of our present phrenological authors.

I must apologize for this unconscionably long letter. I cannot expect that it will shake any of your opinions ; but I hope it will shew you, that I did not interfere in the affairs of the *Logic class*, without having thought repeatedly on the subject, and formed a deliberate and conscientious, even though it may be thought a mistaken, opinion.

CONSILIARIUS TO ACADEMICUS.

30th September 1836.

I have received your letter of twenty-six 4to pages, and return you many thanks for it. From the introductory paragraph, I presume that you intend it for the public ; indeed I am not so vain as to imagine that you can have bestowed so much pains merely for my private edification. I am convinced, however, that no publication of our correspondence can possibly take place, without a "practical application" to a recent election, although you seem to think otherwise. I am ready to lay the *whole* correspondence before the world. . . . If you object to the printing of the whole, then, let it be understood that I am at liberty to publish (on the general doctrines, without practical application) your first and second series of remarks, fairly quoted, with answers and farther commentaries ; and that in such form, and at such time, as may best suit myself.

ACADEMICUS TO CONSILIARIUS.

6th October 1836.

I bored you with so long a letter, that I am not surprised at your supposing I intended to print it ; but I beg to assure you that I have no such intention. I have kept a copy of it, which I intend to avail myself of in lectures.

CONSILIARIUS TO ACADEMICUS.

12th October 1836.

I regret that you are not to publish your letter against Phrenology ; for it contains, I verily believe, all that can well be said on that side, and is expressed in language nowise calculated to offend. I must now devise some mode of replying, without incurring the imputation of drawing you into a controversy, particularly as you state your intention to use that letter in lectures, in which way, of course, I cannot reply to your remarks. The introduction of the subject into lectures will do

good ; for some University students will also attend Mr Combe's lectures in Argyle Square, and will thus be led to think, observe, and judge for themselves, which is all that the phrenologists desire. By such means, I trust, it will soon be perceived to which system most credit is due for improvements in education, in the treatment of insanity, in the prevention of crime, —all objects of the first importance. It is pleasing to find that you now freely admit, and even specify, "additions" made to the Reid and Stewart philosophy by the phrenologists. I hope the new Professor of Logic may prove equally ingenuous.

10th November 1836.

I have resolved, in compliance with your wishes, to avoid taking any farther notice of the implied censure contained in Sir W. Hamilton's letter to the Council,—of canvassing, &c. I shall likewise leave out every allusion to Mr Taylor, and confine myself to your remarks on Phrenology. I am preparing the article for the Phrenological Journal : I shall quote fairly, the only changes being verbal ones rendered unavoidable.

The general candour of your long letter I acknowledge. But you are perhaps hypercritical in one or two instances : for example, you put more stress on my expression "sweep away," than my use of it warranted ; for I used it antithetically ; you having alleged that Phrenology could only *add* to Reid and Stewart's philosophy, and I having rejoined that it would "*rather* sweep it away." Again, when I said that there are "many kinds of memory," I could not mean that every organ had its distinct "memory" attached to it ; for this would have been like constituting memory an original or separate power, the very thing I was denying.

If the Editors choose to add notes or comments, I shall willingly remain silent, satisfied that the discussion will be conducted by abler hands.

I shall call you Academicus and myself Consiliarius. But any one who has read Mr Hewett Watson's little work, will not fail to perceive who is the Professor alluded to.

17th November 1836.

The editorial remarks have assumed the shape of a Letter from Mr Combe to Consiliarius. Mr C. gives his own name, and he evidently alludes to you, although without naming you. Your reasonings are, I think, completely answered ; but I need scarcely add, that the argument is conducted in a gentleman-like style.

MR G. CONEE TO CONSILIARIUS.

MY DEAR SIR,

EDINBURGH, 15th November 1836.

I have perused, with much interest, the correspondence between you and Academicus, and particularly his letter to you dated 26th September. As he holds the office of a public teacher of Physiology, and has announced his intention of using, in his lectures, the observations on Phrenology contained in that letter; and as I perceive that these observations go deeply into the merits both of the phrenological doctrines themselves, and of the authors who now maintain them; I hope that I may be allowed, without being guilty of presumption, to offer for your consideration some remarks, in answer to the objections and arguments of your friend.

Academicus commences by stating, that he has not studied the evidence adduced by Gall and Spurzheim, and their followers, in regard to the appropriation of different parts of the brain to different faculties, so carefully as perhaps he ought to have done, and he assigns various reasons for this omission. I shall examine these reasons in detail, after having discussed two other points, which he also introduces, and which have more of a preliminary character.

Academicus quotes from Mr Stewart's Preliminary Dissertation a passage, in which that author refers to observations on the intellectual and moral phenomena presented by the minds of our fellow creatures, as sources of instruction to the student of mental philosophy; but Mr Stewart, both professedly and practically, confines himself essentially to observations on his own consciousness as the basis of his philosophy. In the same Dissertation we find the following sentences: "I have attempted to shew," says Mr Stewart, "that the legitimate province of this department of philosophy extends no farther than to conclusions resting on the solid basis of observation and experiment; and I have accordingly, in my own inquiries, aimed at nothing more than to ascertain, in the first place, the laws of our constitution, *as far as they can be discovered by attention to the subjects of our consciousness*; * and afterwards to apply these laws as principles for the synthetical explanation of the more complicated phenomena of the understanding." (P. 2.) His observations on the minds of others are professedly merely incidental and accessory. He says, "The whole of a philosopher's life, indeed, if he spends it to any purpose, is one continued series of experiments *on his own faculties and powers*; and the superiority he possesses over others, arises chiefly from the

* These italics are Mr Stewart's own.

general rules (never, perhaps, expressed verbally even to himself) which he has deduced from these experiments." (P. 40.) He proceeds, "As to the minds of *others*, it is undoubtedly but seldom that we have the means of subjecting them to formal and premeditated experiments. But even here, many exceptions occur to the general assertion which I am now combating." (Ibid.) That this is a correct representation of Mr Stewart's opinions admits of abundant proof. In his *Elements of the Philosophy of the Human Mind*, he says: "By confining their attention to the sensible qualities of body, and to the sensible phenomena it exhibits, we know what discoveries natural philosophers have made; and if the labours of metaphysicians shall ever be rewarded with similar success, it can only be by attentive and patient reflection on the subjects of their own consciousness." (P. 8.) Again, in the same work, he says, "My leading object is to ascertain the principles of our nature, in so far as they can be discovered by attention to the subjects of our own consciousness; and to apply these principles to explain the phenomena arising from them." (P. 12.) I therefore regard the observation in your letter to Academicus on this subject as amply borne out by these authorities. Mr Stewart is one of the most inconsistent authors that ever published on the philosophy of mind. In his works a constant conflict is obvious between the results of his vicious system of philosophising and the plain dictates of common observation and reason. In one page his speculative philosophy prevails; while in the next some judicious remarks, obviously drawn from observations on other men, intrude themselves. From this circumstance, Academicus may easily select particular passages in support of his assertion that Mr Stewart's philosophy is not confined to reflection on consciousness as its basis; but not only the passages which I have now quoted, but the general tenor of his writings, and the conclusions at which he arrives, prove the reverse.

Academicus admits, that if the connexion of individual portions of the brain with particular mental acts were ascertained, we should have a manifest addition to our knowledge of the mind, but an addition strictly within the province of the philosophy of Reid and Stewart; and he is particularly anxious to shew that Phrenology, in so far as it shall prove to be true, will be nothing more than an "*addition* to their system, formed on their principles,—not a substitution of another."

This point is perhaps not very much worth contending about; but my opinion is, that, as the philosophy of Newton swept away the philosophy of Descartes, in the same sense will Phrenology supersede the doctrines of Reid and Stewart, as systems of mental philosophy. So far as the hypothesis of Descartes assumed the

existence and motions of the heavenly bodies, it was not overturned by Newton, whose philosophy was founded on the same physical phenomena; and, in like manner, so far as Dr Reid and Mr Stewart have correctly observed and recorded the phenomena of mind, their observations will preserve their value. But they will be valuable in the same sense and for the same reason that the observations of Shakspeare and Sir Walter Scott on human nature are so—because they are descriptions of real phenomena, and not because they give a true and satisfactory view of the principles and relations of the phenomena, which alone constitutes a science. Academicus reminds me of the Buddhist priests in Ceylon: the missionaries frequently found no great difficulty in convincing them of the excellencies of the Christian religion, which they were willing to engraft upon their own; but they never could be made to admit that Christianity should “sweep away” the doctrines of Buddha.

Dr Reid and Mr Stewart admitted in general terms, as Academicus does, that a connexion subsists between the mind and the brain; but in their whole doctrines the following considerations are overlooked:—

1. The influence of the condition of the brain, as to age, size, health, and temperament, on the mental manifestations:

2. The connexion of particular parts of the brain with particular mental faculties.

3. The influence of the size and condition of each particular part on the mental faculty which it serves to manifest.

A description of the phenomena of mind, omitting these considerations, bears the same relation to mental science which a detail of the phenomena of vision, omitting all notice of the structure of the eye and its laws of action, would bear to optics. Science is perfect only in proportion as it embraces and elucidates the causes and relations of the phenomena of which it treats. Tried by this test, the philosophy of Reid and Stewart is extremely defective; for it omits all practical consideration of the material organs of the mind, on the condition of which depend its power of acting in this life, the degree of its vigour, the soundness of its perceptions, and the strength of its different functions.

Not only is it chargeable with these actual deficiencies, but its methods do not admit of their being supplied. Mr Stewart, as I have said, repeatedly refers to our own consciousness as the grand source of information in mental philosophy, to which Academicus adds “inferences as to the mental acts of others;” but neither reflection on consciousness, nor inferences regarding the mental acts of others, will enable us to discover the influence of the brain on the mental faculties. We are not conscious of the influence of the organs on the faculties, and, in observing the actions of other

men, we do not perceive indications of the influence of their brains. We must go a step farther. We must compare the condition, as to size, health, age, and temperament of their brains, and of each particular part of them, with their powers of manifesting the mind and its particular faculties; and, whatever "fallacies" this method may be liable to, no progress can possibly be made in discovering the influence of the organization until this shall be done.

Academicus is disposed to admit the connection of the fore part of the brain with the strictly intellectual acts, and of the propensities and sentiments with the upper and back parts of it. This connection, in favour of which he thinks there is a strong probability, could not be discovered except by comparing the power of manifesting those mental powers with the condition of those parts of the brain; and why not pursue the same method into its more minute details? This is like a naturalist who should admit orders and genera, but refuse to inquire into the characteristics of species and varieties, on the ground that this last investigation (although identical in its principles with that which had led him to make these admissions) appeared to him "to be liable to very considerable fallacies."

The imperfect and erroneous nature of the methods pursued in Reid and Stewart's philosophy becomes apparent when contemplated in their results.

First, In regard to the *feelings*.—Phrenologists admit that Reid and Stewart, and other metaphysical authors, have enumerated, under the head of the "active powers," a number of primitive desires and emotions, which are found to have organs in the brain; for instance the love of offspring, the love of fame, the desire of society, and some others: But they observe, *1st*, That no notice is taken by these authors of the influence of the condition of particular parts of the brain, on the vigour with which these and the other desires are experienced, and that this influence is so important, that the mere enumeration of the emotions, without adverting to the organs, is no more entitled to be regarded as the science of mind, than observations on the revolutions of the planets considered apart from the laws of motion and gravitation are entitled to be called the science of astronomy; *2dly*, That many desires and emotions are altogether omitted in their enumerations, such as the inclination to destroy, the tendency to conceal, the tendency to construct, the tendency to venerate, and others; *3dly*, That the existence of the most important tendencies and emotions is a subject of dispute among them, while their principles of investigation afford no satisfactory means of settling the differences of opinion: for example, Mr Stewart denies that the love of property is a primitive faculty of the mind, and ascribes avarice to association; he and

Reid admit a benevolent affection, while Hobbes and others deny it; he and Brown admit a native sentiment of justice, while Mandeville, Hume, and Paley reject it, and Sir James Mackintosh considers conscience as a compound result of many affections. While philosophers refer only to their own consciousness, they cannot settle these disputes satisfactorily; because some men are conscious, and others are not conscious, of the emotions. Even when they call in the aid of observation on the acts of other men, they fail to arrive at certainty; because if the observer be deficient in the feeling himself, he does not easily recognise it in the acts of others, but is apt to ascribe their manifestations of it to other affections better known to himself: and, moreover, some men do, while others do not, manifest these feelings, so that two observers might report different results, and each adduce real instances in support of his conclusion.

By the phrenological method of observation, these difficulties are greatly diminished. Each student is informed that he has the strongest consciousness of those inclinations and emotions, the organs of which are largest in his own brain. If he be very deficient in the organ of Conscientiousness, he is warned that his own consciousness is not a trustworthy index of the existence and strength of the feeling in other men. If he possess that organ large, then he is acquainted with the emotion, and he is capable of observing the presence or absence of its manifestations in other men. By comparing the size of a certain part of the brain with the vigour of this emotion, he may obtain demonstrative evidence of its existence. Cases of imperfect manifestation of it by some individuals, if found in connection with a deficiency in the organ, will become additional proofs of its existence, instead of operating as facts negative of its reality.

Secondly, in regard to the *intellectual faculties*.—Academicus affirms, that the phrenologists, in contending for the existence of different faculties of Form, Colouring, and others, merely use the term *faculty* in a different sense from that in which it is employed by Reid and Stewart. He says that: Reid and Stewart described “distinctions among the acts of the mind themselves;” while the phrenologists, in the instances now mentioned, arrange the study according to the *objects* to which these acts are directed. There are much greater differences than these,—the extent of which will again appear by the results. The phrenologists admit Perception, Conception, Memory, Imagination, and Judgment, to be *acts* of the mind, but not *faculties*. What they mean by a *faculty* will be understood by taking the example of an organ. There is an organ of Colouring, for instance. When it is large and active, the individual is capable of perceiving, conceiving, remembering, and imagining colours, with vigour and facility;

when it is slightly deficient, he is capable of perceiving and remembering them, but has little power of imagination in regard to them—he could not, for instance, invent new combinations of them to enable him to paint unwonted appearances of colours in nature; when more deficient, he is capable only of perceiving, but not of remembering them; and when very deficient, he cannot even perceive them distinctly. When the organ is spontaneously active, he conceives colours vividly; when it is stimulated by disease, he sees colours that have no outward existence. The same illustrations might be given in regard to the organs and faculties of Form, Number, and others. Now, what Reid and Stewart did was to describe the acts of perception, conception, memory, imagination, and judgment, in general, and to call these *faculties*. The extent of difference between this and the phrenological method of expounding the science of mind, admits of easy illustration.

Imagine one physiologist, when treating of secretion, to describe its mere general phenomena, and to mention that these are performed by the body in general; and another to proceed to an exposition of the stomach, as the organ which secretes the gastric juice, of the liver as that which secretes bile, and of the salivary glands as those which secrete saliva. Suppose the latter, farther to point out the structure, modes of action, and relations of each of these organs, and to explain the effects of the state of it on its own peculiar secretions; suppose him also to describe the phenomena which are common to all these secreting organs, and to deduce general laws applicable to them all, but still to discriminate the peculiar functions, modes of action, and laws of each—which would have best unfolded the science of secretion? Undoubtedly the latter.

Again, suppose one philosopher to describe *sensation* as a general mental power, and the body as its organ; and another to distinguish each variety of sensation, to ascribe it to its own peculiar organ, and to expound the effect which the state of that organ had on the sensations connected with it—which of them would deserve the credit of having taught the *philosophy* of sensation? Assuredly the one who had expounded the particular organs. And would it not be more correct to apply the term *faculty* to each of the senses, than to use that word in reference to some general act performed alike by them all?

These cases are illustrations of the differences between the philosophy of the intellectual faculties taught by Reid and Stewart, and that expounded by Gall and Spurzheim, and their followers.

Farther, what opinion should we form of the physiologist who, having announced that secretion in general is performed by the body in general, should affirm that those who opposed

this notion, and who had established distinct organs of secretion, with distinct products, had merely classified the phenomena of secretion *according to their products*, and made *additions* to his system? We should admire his confidence more than his discrimination; yet this is parallel to the statement of Academicus, that Drs Gall and Spurzheim have only classified the mental phenomena *according to their objects*, and made additions to the philosophy of Reid and Stewart. It would be necessary to "sweep away" the whole doctrine of secretion being one general function, and of its being performed by one general organ, before a single step could be made in establishing the sound philosophy of that function; and the same conclusion holds good in regard to the intellectual philosophy of Reid and Stewart.

The organs of the different faculties exist and produce their natural effects, and common language is full of expressions indicative of the existence and activity of the related faculties. For example, men speak of individuals as being addicted to pride, to avarice, or to vanity; of others, as having talents for drawing, or for painting, or for mechanics, and so on; while other individuals are mentioned as being deficient in these powers. These facts have intruded themselves as it were into the writings of Dr Reid and Mr Stewart, but they form no part of their philosophy. Indeed, they are excluded by that of Mr Stewart. After enumerating Consciousness, Perception, Attention, Conception, &c. as intellectual powers, he adds: "Besides these intellectual faculties, which in some degree are common to the whole species, *there are other more complicated powers or capacities, which are gradually formed by PARTICULAR HABITS OF STUDY OR OF BUSINESS. Such are the Power of Taste; a GENIUS FOR POETRY, for PAINTING, for MUSIC, for MATHEMATICS; with all the intellectual habits acquired in the different professions of life.*"—(Outlines of Mor. Phil. p. 16.)

According to the phrenological system, a genius for poetry depends on a fine temperament, combined with a large development of certain parts of the brain. A genius for music depends on certain *other* parts being highly developed; and a genius for mathematics on still *other* parts being largely possessed; high temperament being always added. According to Mr Stewart's philosophy, these powers are not the gifts of nature, but are gradually formed by particular habits of study or of business. Nothing can be more dissimilar than these results, and the cause of the dissimilarity is to be found in the difference of the modes of philosophizing adopted by him and the phrenologists. He mistook mere general acts of all the intellectual faculties for faculties themselves. Perception, for instance, is

nifested by individuals. If it be *possible*, the thing should be done, without regard to its deriving support and confirmation from any other source. Difficulty offers no apology for not doing it. Academicus, standing in the situation of a public teacher, seems bound, in duty to his pupils, to make reasonable efforts in order to ascertain whether so great an addition to human knowledge in his department as the discovery of the functions of different parts of the brain has in reality been made.

Phrenology is a science of observation, and the most rational, the most certain, and the most speedy way of ascertaining the real merits of its pretensions is, for the inquirer to repeat the observations in the manner pointed out, after duly qualifying himself to do so. It is strange that there should be so great an aversion to follow this plain course in regard to Phrenology. Dr Roget proposed to inquire into the competency of Drs Gall and Spurzheim to make their alleged discoveries, before he would put them to the test of observation; and now, Academicus abstains from studying the evidence, because it appears to him to be liable to "very considerable fallacies," unless supported by other observations. Phrenologists have never asked any one to admit their doctrines on the faith of their recorded cases, but have constantly said,—Appeal to nature. Academicus would have ascertained the truth of Phrenology by appealing to Nature in half the time that he has spent in arguing the question whether he should do so or not.

But I shall advert to the alleged sources of fallacy themselves.

The *first* element in the evidence in favour of phrenology is, that the size of the different parts of the brain (the functions of which are described as ascertained), may be discovered during life. This, I presume, is the physical part of the fallacies. On this point I refer to the following authorities.

Magendie, in his *Compendium of Physiology*, says, that "the only way of estimating the *volume of the brain* in a living person, is to *measure the dimensions of the skull*; every other means, even that proposed by Camper, is uncertain."

Sir Charles Bell also observes, "that the bones of the head are moulded to the brain, and the peculiar shapes of the bones of the head are determined by the original peculiarity in the shape of the brain." Dr Gordon likewise, in the 49th number of the *Edinburgh Review*, has the following words: "But we will acquiesce implicitly for the present in the proposition (familiar to physiologists long before the age of Gall and Spurzheim), that there is, in most instances, a general correspondence between the size of the cranium and the quantity of cerebrum; that large heads usually contain large brains, and small heads small brains."—(P. 246.)

If the whole skull indicate correctly the size of the whole brain, it is not unreasonable to believe that the development of different parts of it, with certain exceptions (which are stated by phrenologists), will indicate the size of different parts of the brain.

2dly, As to the *mental fallacies*, by which I presume Academicus means the difficulty of ascertaining the real character of the individual observed. I have discussed this subject in my *System of Phrenology*, 4th edition, p. 85-7. But there is another answer, which Academicus will perhaps find more constringent. In the second paragraph of his letter he says, that the foundations of the philosophy of Reid and Stewart are "*inferences as to the mental acts of others*," as well as consciousness of mental actions in ourselves." The words here in Italics must mean, that the philosophy of Reid and Stewart is founded partly on observations made on the mental acts of other men. If such observations be competent to afford a foundation for their philosophy, why is the same practice liable to very considerable fallacies when resorted to by phrenologists?

Academicus states, however, as a further apology for not studying the evidence, that the conclusions drawn by the phrenologists derive no support or confirmation "from comparative anatomy,—from the results of experiments on animals,—from the effects of injury or disease of individual portions of the brain." I beg leave to offer a few observations on each of these topics.

1st, As to Comparative Anatomy. Cuvier, speaking of the cerebral lobes being the place "where all the sensations take a distinct form, and leave durable impressions;" adds, "L'anatomie comparée en offre une autre confirmation dans la proportion constante du volume de ces lobes avec le degré d'intelligence des animaux."—(Report to the French Institute in 1822 on the Experiments of Flourens.) And it is elsewhere stated by the same eminent naturalist, that "*certain parts of the brain*, in all classes of animals, are *large or small according to certain qualities of the animals*."—(Anat. Comp. tom. ii.) This is pretty strong authority; to which more might be added. The general conclusions from the comparative anatomy of the brain are ably stated in the 94th number of the *Edinburgh Review*: "It is in the nervous system alone that we can trace a gradual progress in the provision for the subordination of one (animal) to another, and of all to man; and are enabled to associate every faculty which gives superiority with some addition to the nervous mass, even from the smallest indications of sensation and will, up to the highest degree of sensibility, judgment, and expression. The brain is observed progressively to be improved in its structure, and, with reference to the spinal mar-

row and nerves, augmented in volume more and more, until we reach the human brain, each addition being marked by some addition to, or amplification of, the powers of the animal,—until in man we behold it possessing some parts of which animals are destitute, and wanting none which theirs possess."

Is Academicus acquainted with Dr Vimont's "Treatise on Human and Comparative Phrenology?" In that work Dr Vimont delineates, in plates possessing the highest qualities of fidelity and beauty, the brains and skulls of a variety of animals, and points out the connexion between particular parts and particular instincts or powers. Academicus will probably treat this work with contempt, because Dr Vimont is a phrenologist. Dr Vimont, however, was an antiphrenologist until he made the investigations which he has now published; and it was Nature that forced him to change his opinions. Further, his plates are visible and tangible; the brains and skulls of the animals delineated are easily accessible; and their instincts are, in many particulars, generally acknowledged. On what principle of reason, then, is Academicus entitled to avert his eyes and his understanding from such facts; and, without being able to affirm that they are erroneous, to allege that they afford no confirmation of the appropriation of different faculties to different parts of the brain?

Academicus proceeds: "Indeed, as to comparative anatomy, you must probably be aware, that the result of observations in that science goes completely to disprove the idea, that any fixed relation exists in the different tribes of animals, between the degree of intelligence that can be observed in them, and the size or complexity of structure, or indeed any circumstance of structure that has yet been pointed out in their brains."

My information on this subject is very different. Desmoulins and Magendie state (*Anatomie des Systèmes Nerveux des Animaux vertébrés*, p. 620), that in numerous examinations of the brains of almost every genus of the mammalia, they found a nearly constant relation between the extent of surface presented by the brain in each genus, and the amount of intelligence displayed by it. Where differences occur in one of these points, differences are stated to be usually found in the other, not only between different genera, but between different species of the same genus, and also between different individuals of the same species. Professor Tiedemann of Heidelberg, in his work on the Brains of Apes and of some other animals, has accurately delineated and described the progressive diminution and final disappearance of the folds of the brain in the mammalia, from the Apes down to the Rodentia; and, according to Desmoulins (p. 602), this progression corresponds exactly with the diminution of intelligence. The most striking difference

exists between the apes of the old world and those of the new. Many of the former are capable of being trained and employed for useful purposes, while the latter are incapable of instruction, and scarcely exceed squirrels in the degree of their intelligence. This corresponds with the state of the convolutions. In some dogs, especially those employed in hunting, the convolutions are scarcely less numerous and deep than in the higher tribes of apes; while in the less intelligent species, and in wolves, they exist in a much inferior degree of development. Every one must have been struck by the great difference as to docility observable between dogs and cats; an equally striking difference is found in the appearances presented by the number and depth of the convolutions of their brains—a difference so great, that Desmoulins estimates the convolutions of the dog to exceed by six or eight times those of the cat. The paucity of convolutions found in the cat prevails throughout the entire genus to which it belongs. That genus, *Felis*, which includes the cat, lion, tiger, panther, and other animals of a similar nature, is likewise remarkable for the *uniformity* observed in the number and arrangement of the convolutions in the different species; and in no genus are the species more distinguished for similarity of disposition, for through none do the faculties of Secretiveness and Destructiveness prevail in so extreme a degree of strength.

Sir Charles Bell observes: “When we compare the structure of the brain in different animals, we find that in certain lower classes there are no convolutions; the surface of the cineritious matter is uniform. As we ascend in the scale of beings, we find the extent of the cineritious matter increased. To admit of this, it is convoluted, and the depth of the sulci is the consequence of the extension of the great cineritious mass; and in man above all other animals are the convolutions numerous and the sulci deep, and consequently the cineritious mass, and its extension of surface, far beyond that of all other creatures.” (*Anatomy*, vol. ii. p. 385.)

Farther, I have pointed out to hundreds of students the difference between the skulls of carnivorous and herbivorous animals; between the tiger and the sheep; between the cat, dog, and fox, and the doe; and between the cat and the hare, in the region immediately above and behind the ear, the situation of the organs of Destructiveness and Secretiveness. The parts are so much larger in the carnivorous than the herbivorous animals, that it is impossible to fail in perceiving the difference, unless the eyes be utterly blinded by prejudice. I have exhibited also the difference between the skull of the beaver and that of the dog and fox in the region of Constructiveness. Does Academicus deny these facts; or has he only not attend-

ed to them? They assuredly afford some confirmation of the appropriation of different parts of the brain to different instincts in these animals.

Finally on this topic; Academicus admits that there are reasonable grounds for ascribing the intellect to the anterior lobe, and the feelings to the posterior and upper regions of the brain. *Quæritur*, Where did he find the evidence for this opinion? The method of direct comparison of size with manifestations is liable, he says, to "very considerable fallacies," and he has never practised it; while comparative anatomy, according to him, "goes completely to disprove the idea that any relation exists between the degree of intelligence and any circumstance of size or structure in the brain." If these sources of information be excluded, it will be difficult for him to shew the reasonableness of the admissions which he is disposed to make.

3dly, The next reason assigned by Academicus for not studying the evidence adduced by Gall and Spurzheim and their followers is, that their conclusions are not supported by "the results of experiments on animals." On this topic I shall simply refer you to the following report of a discourse delivered by Sir Charles Bell before the Anatomical Section of the British Association, which appeared in the Scotsman newspaper of the 13th September 1834.

"On Thursday and Friday, there was a numerous attendance in the Anatomical Section, when Sir Charles Bell gave an interesting exposition of his views of the nervous system. He was the first to demonstrate what other physiologists had previously conjectured to be probable, viz. the existence of separate nerves of motion and of sensation. His statement was a recapitulation of his publications, and we did not observe that he added any new facts. In several particulars we were gratified by his exposition, as marking the certain, although slow, progress of truth. Dr Spurzheim, when he visited Edinburgh in 1816, maintained that the uses of the brain could not be philosophically ascertained by mutilations of the brains of animals; but he was ridiculed for saying so, and it was asserted that this was one of his numerous back-doors for escaping from adverse evidence. Flourens and Magendie in France, Sir William Hamilton here, and various other individuals, have, in the interval, performed numerous experiments on the brains of the lower creatures, and published results which have been extensively cited as evidence against Phrenology. Yesterday, Sir Charles Bell explicitly stated, that he also had made such experiments, and had obtained no satisfactory results; and he then shewed why he had failed, and why all other experimenters must fail who pursue this method of inquiry. These experiments always, and necessarily, involve a great shock to the

nervous system in general, and cannot be confined in their effects to the part cut out. We may add,—If we do not know what office the part performs in health, how can we know whether the function has ceased *in consequence of* the ablation or not? It may be true, that if we were to cut out the organ of Tune from the brain of a canary, the bird would never sing again; but if, in ignorance of what part is that organ, we were to cut out any other portion of the brain, with a view to discover it, we should be disappointed; because, whatever part we injured, the effect on its singing would always be the same; it would cease to sing, for the obvious reason that singing and a mangled brain are not compatible in nature. We rejoiced to hear this method of investigation renounced and condemned by so great an authority."

4thly, The last reason of Academicus for not studying the evidence is, that the results derive no support or confirmation from "the effects of injury or disease of individual portions of the brain." Such a statement could proceed only from a person who had confined his reading to the reports of non-phrenological or of anti-phrenological authors. In the Phrenological Journal, as well as in other phrenological publications, there are many well authenticated cases, shewing that these results receive the strongest confirmation and support from the effects of disease or injury of individual portions of the brain. Among the testimonials which I had the honour of presenting to the Town Council of Edinburgh in June and July 1836, when I became a candidate for the Logic Chair, are several from physicians to lunatic asylums, who testify in direct opposition to the assumption made by Academicus. Sir W. C. Ellis, superintendent of the Asylum at Hanwell, says: "It is unnecessary for him to inform Mr Combe that, residing amidst 600 lunatics, no day passes over in which the truth of Phrenology is not exemplified." Dr James Scott, surgeon to the Royal Hospital at Haslar, and medical superintendent of the Royal Naval Lunatic Asylum, says: "As I have been for nearly ten years the medical attendant of the Lunatic Asylum in this great hospital, my opportunities, at least, of observing have been great indeed; and a daily intercourse with the unfortunate individuals entrusted to my care and management (whose number has never been less than one hundred and thirty persons, and often many more), has firmly, because experimentally, convinced me that mental disorder and moral delinquency can be rationally combated *only* by the application of Phrenology." H. A. Galbraith, Esq., surgeon to the Glasgow Royal Lunatic Asylum, says: "Situated as I am in the midst of a wide field for observation, more particularly in regard to disordered mental manifestations, I have been for several years past led to compare these with the phre-

nological development of the individuals in whom they appeared ; and from the result of numerous and well-marked instances, which have not only been known to me during a state of morbid activity, but from authentic accounts of the previous mental indications, I have not the least hesitation in declaring my firm belief in the general doctrines of Phrenology." Many other certificates to a similar purport were brought forward by me on that occasion, and copies of the whole of them were presented by me to Academicus. I do not say that he was bound on that evidence to embrace Phrenology ; but, with all deference, these testimonials render his statement that the results of Drs Gall and Spurzheim's investigations derive *no* confirmation from "the effects of injury or *disease* of individual portions of the brain," not entirely credible, and scarcely leave him an adequate apology on this ground for delaying to "study the evidence" by a direct appeal to nature.

While, however, Academicus practises a boundless caution and incredulity in regard to every fact, argument, and doctrine brought forward by phrenologists, these mental qualities appear to forsake him when he considers facts, doctrines, or experiments brought forward by persons adverse to the science. He disbelieves in the cerebellum being the organ of Amativeness, because this is affirmed by Dr Gall, and he believes in its office being to regulate "muscular motions," because this is asserted by Magendie and Flourens. I venture to ask him, whether, in forming these opinions, he has read and candidly weighed the evidence adduced by Dr Gall in his "*Physiologie du Cerveau*" on this point, and given due weight to the observations of Sir Charles Bell on the effects of mutilations of the brain, in considering the experiments of Flourens and Magendie ? He knows that the nature of the details given by Gall prevents the phrenologists from printing them in merely popular works ; but as a scientific inquirer he was bound to consider them in their original records. My suspicion is, that he has omitted "to study the evidence adduced by Gall and Spurzheim and their followers on this subject so carefully as perhaps he ought to have done," and by this supposition alone is it possible to account for his rejecting the one and embracing the other opinion. Dr Broussais, in his lecture on the functions of the cerebellum, reported in the *Lancet* of 30th July 1836, accounts in a manner that appears to me satisfactory, for the effects of mutilations of the cerebellum on muscular motion, in perfect consistency with the functions ascribed to that organ by Dr Gall.

Academicus remarks, that "a book on intellectual or moral philosophy going in a few years through many editions, may be safely set down as a very superficial book." The same might be said of a book on any other science ; yet Sir John

Herschel's Discourse on Natural Philosophy has gone through many editions in a few years, and it is generally regarded as being a very profound and able work. Superficiality alone will not render a book on any subject acceptable to numerous readers: there must be something more. If the work address itself to strong existing prejudices, it may be temporarily successful and yet superficial. Beattie's Essay on Truth, as contrasted with Hume's Essays, is an example in point. But if a work oppose public opinion, if its author enjoyed no previous or extrinsic reputation, if it have been combated and dissected by men of the first talents, and if, nevertheless, it have constantly advanced in estimation and circulation, the conclusion does not inevitably follow that its success has been owing entirely to its superficiality. It *may* have advocated important truths in so clear and forcible a manner as to have interested numerous reflecting men, and on this account have been successful.

Academicus is pleased to conclude by expressing his opinion, that "the injudicious pretensions of the present supporters of Phrenology will ultimately be fatal to the personal reputation of most of our present phrenological authors." As I have the misfortune to be one of these authors, my remarks on this sentence must be received with due qualification; but as he has raised a question of *pretensions*, I leave the public to judge whether his condemnation, uttered avowedly without having studied the evidence, betokens greater or less modesty than my asseverations in favour of certain propositions, *after* having examined the proofs. Allowing for a great superiority in genius, perspicacity, and learning, on the side of Academicus, the study of the *evidence* may be reasonably allowed to add *something* to the probabilities of my assertions being true. This point, however, the public alone are competent to settle. It is probable that the contests which are now maintained on this subject may ultimately prove fatal to the reputation either of the phrenological authors or of their opponents:—*which* is more likely to suffer, it is not my province to decide. If I look forward with confidence to the ultimate decision, it is, *first*, because I *have*, in all humility and with all assiduity, *studied the evidence* adduced on the subject, and have endeavoured, so far as in me lay, to advance no opinions which are not warranted by evidence; and, *secondly*, because I find that the more narrowly intelligent inquirers have examined into the facts, they are disposed to recognize the greater extent of truth in the doctrines which I advocate. You, for instance, who have examined them, entertain a more favourable opinion of these arguments than Academicus, who has not seen reason to do so. The history of science has presented some examples of men opposing great

and important discoveries, whose reputations were not advanced in the estimation of posterity by such applications of their talents. A writer in the 94th Number of the *Edinburgh Review*, alluding to the opponents of Harvey, says: "The discoverer of the circulation of the blood,—a discovery which, if measured by its consequences on physiology and medicine, was the greatest ever made since physic was cultivated,—suffers no diminution of his reputation in our day, from the incredulity with which his doctrine was received by some, the effrontery with which it was claimed by others, or the knavery with which it was attributed to former physiologists, by those who could not deny, and would not praise it. The very names of these envious and dishonest enemies of Harvey are scarcely remembered; and the honour of this great discovery now rests, beyond all dispute, with the great philosopher who made it." If the great doctrines of Phrenology as now taught shall be ultimately approved of by competent judges who *have* studied the evidence, posterity will probably be disposed to pronounce a similar judgment on the merits of those who have rejected and opposed them. If the doctrines, when thus tried, shall be found at variance with Nature, the reputation of all phrenological authors will most deservedly vanish.

Finally; in judging of the merits of living phrenological authors, it is necessary to keep in view to what their pretensions relate. They maintain that Dr Gall has discovered the functions of many particular parts of the brain, and that this discovery is of great importance in medicine and mental science. They offer to his memory the homage of a profound and sincere admiration, on account of his having made this valuable addition to human knowledge; and affirm that those individuals whose duty it is to study the evidence of his discovery and apply it, but who neglect to do so, are not deserving of esteem for this omission; but here their pretensions stop. They claim no merit in the discovery for themselves; they boast of no superiority of talents or of general learning over their adversaries; on the contrary, they allow to them every possible advantage on these points, and limit their own pretensions to the humble merit of having observed and interrogated Nature on this subject, while their more gifted opponents, in the pride of their own greatness, have closed their understandings against "evidence" which obtrudes on their attention. To have pretended to less, would have been to prove traitors to the cause of truth; that they have pretended to more, is an unjust accusation against them.—I am, my dear Sir, yours very sincerely,

GEO. COMBE.

Since this article was in the press, a communication from Academicus has been received by Consiliarius, and transmitted to us. We shall give it in the exact words of Academicus.

17th Novr. 1836.

As to the publication of the substance of my letter to you in the Phrenological Journal, I beg to express only two wishes—1. That it may be stated that it was not at my desire that it was published; and 2. That it may appear from what is published, as I think it must from the letter itself,* that I give no farther opinion as to the *truth* of the peculiar doctrines of Phrenology than this—that the evidence does not appear to me satisfactory. It may be all true for any thing I know; and if I shall see evidence which shall seem to me conclusive, I shall be most happy to adopt it all; for I think I can truly say, that in matters of science I care for nothing earthly but the truth. It is to the *pretensions* of Phrenology—supposing all that they assume to be established—to supersede or set aside, or *sweep away* (I still think your own phrase accurately expresses the usual opinion of phrenologists on the scope and bearing of their science), all the old Philosophy of Mind, that I set myself in opposition.

That my arguments will be completely answered to the satisfaction of the readers of the Phrenological Journal (who, I presume, are all phrenologists), I have no doubt. That they will be so to the satisfaction of the rest of the world, or that the rest of the world will know or care whether they are answered or not, is perhaps more doubtful.

As you mention the work of Mr Hewett Watson, which he was so good as to send me, I trouble you with an observation on a passage in it, criticizing a sentence of mine. I had said, that the brain proper appears, from experiments and morbid appearances, to be the residence of *thought*; and he accuses me of not knowing that many of the *propensities* and *sentiments* are placed by Gall and Spurzheim in the brain,—supposing that I exclude them when I speak of *thought*. Now I used the word as a general one, to express *all* strictly *mental acts*, as distinguished from sensations, and from voluntary muscular efforts. Probably I should have used the general term *mental acts*. But if I had meant to restrict the term to the intellectual powers, as he supposes I did, I should have used the term *intellect*. This explanation shews that his criticism of my observation is founded on misapprehension of my meaning.

ARTICLE VIII.

THE PHILOSOPHY OF PHRENOLOGY SIMPLIFIED. By A MEMBER of the PHRENOLOGICAL and PHILOSOPHICAL SOCIETIES of GLASGOW. Glasgow: W. R. M'Phun, 1836. 18mo. Pp. 144.

As originality and excellence are seldom to be found in *anonymous* elementary works, especially those which have little in their external aspect to recommend them, we took up the present volume without expecting to derive from it much gratification. It soon became apparent, however, that the writer, instead of being a mere superficial compiler, was a well-informed phrenologist and anatomist, a philosophical thinker, and able to express his ideas in general with precision and ease. There seems to have been no good reason for withholding from the work the authority of his name.

* The letter itself is published entire, as far as Phrenology is concerned.—
EDIT.

"The Philosophy of Phrenology Simplified"* is a title which conveys no just idea of the contents of the volume ; for these are less systematic and rudimentary than such a title would indicate.

In the introduction the author treats of the causes of the opposition which Phrenology has met with—the discordant opinions entertained by the old philosophers regarding the mental faculties and their organs—and the mode in which Phrenology was discovered by Dr Gall. He cites the following passage from the work of Hippocrates *De Morbo Sacro* :—"From the brain only proceed pleasure, and joy, and laughter, and sport, as well as griefs, anxieties, sorrows, and weeping. By it we are wise, and understand, and see, and hear, and appreciate. By it we distinguish what is pleasant and what is disagreeable ; and by it the same things do not please us under all circumstances. By it we are insane and delirious, experience terrors and fears, partly by night and partly by day ; do not recognise those who are with us ; lose our habits, and forget our experience. All this we suffer from the brain if it is not healthy ; wherefore, I say, that the brain is the messenger and interpreter of intelligence and wisdom."

Chapter I. contains a good summary of the usual arguments by which the brain is demonstrated to be the organ of the mind. With these we need not detain the reader. "The man," it is said, "who admits that the brain is the organ of mind, is virtually a phrenologist ; for he cannot stop here, he must go farther and admit, that the state or condition of the brain must influence the mental powers. We admit the correctness of the general principle, that the state or condition of an organ has necessarily an effect upon the function of that organ, and we dare not in logical correctness refuse our assent to the principle when applied to the brain. The eye is the organ of vision, and we unhesitatingly admit that a well formed and sound eye is indispensable to perfect vision. Muscles are organs of motion, and we never doubt for a moment that different degrees of muscular development are concomitant with different degrees of muscular power. If the state or condition of an organ then affects the functions of that organ, it follows necessarily, that the development and other conditions of the brain will affect the mental manifestation."

The author replies, in a clear and satisfactory manner, to the objections—that we are not conscious of the existence of organs of the faculties—that neither difference of structure nor boundary lines can be discovered between the organs in the brain—

* It may be proper to mention, that this is a different work from "Phrenology Simplified," a compilation the demerits of which we exposed at page 52 of this volume.

and that the skull and integuments of the head prevent the form of the cerebral mass from being seen. In the second chapter it is shewn that the brain is a congeries of organs; reference being made, with this view, to the different powers which the mind displays—the corresponding diversity of form in the brains of different individuals—the diversity of human talents—partial idiocy and insanity—and the phenomena of dreaming. This chapter concludes with an exposition of the harmony of anatomy with the phrenological doctrines.

The third chapter is on the comparative anatomy of the nervous system, which, as the author well shews, furnishes strong evidence in favour of Phrenology; for it is found, that as animals rise in the scale of intelligence, the more fully is the brain developed. The facts mentioned in the following passage are new to us, and of considerable value:—"The *development* of the nervous system in some insects is peculiarly interesting. The observations of Dr Herold have thrown much light on this part of physiology, and lead to conclusions favourable to Phrenology. With great care he traced the gradual changes that take place in the nervous system of the common cabbage butterfly, from the time it obtains its full size to its assumption of the *imago*. These changes were found to consist principally in the progressive shortening of the nervous internodes, and consequent approximation of the ganglia—in the obliteration of some of the nerves—in the amalgamation of two or more ganglia—in the union of the first ganglion with the brain—in the union of two ganglia at the expense of one or two others—and, lastly, in the lobes of the brain which formed an angle with each other becoming horizontal. These are, no doubt, remarkable and necessary changes; and why necessary? Because the animal is about to change its character, and a corresponding change of nervous system is indispensable. Had the nervous system of the insect undergone no change when such an obvious change in the powers and habitudes of the animal had been effected, we might have drawn a conclusion unfavourable to Phrenology. But all these changes are in harmony with the phrenological system. Change of structure must always precede a change of function; and we find here a series of important changes, without which the necessary muscular, sensitive, and instinctive powers could not have been imparted." The author's remarks on Camper's facial angle are sound and judicious.

The nervous system of man—including the nerves, ganglia, plexuses, spinal cord, medulla oblongata, cerebellum, and cerebrum—are successively treated of in Chapter IV. Though it is impossible here to enter into the details of this chapter, we cannot refrain from quoting the author's argument against the common opinion that the spinal cord is an organ of motion

and sensation. In what respects, says he, it differs from the functions of the nerves inserted into it, the physiologists who hold this opinion have not attempted to explain. The circumstance that the dorsal roots of the spinal nerves are nerves of sensibility, and the anterior, nerves of motion, indicates no such difference. "The spinal cord appears to be merely an instrument of *communication* between the nerves of motion and sensation, and the brain the seat of the intellectual operations. Did time permit, we think we could prove the correctness of this opinion by a reference to the effects of compression—the nerves below the point of compression only being uniformly affected, and never the nerves between the point of compression and the brain. When the spinal cord at the upper part of the neck is compressed the animal instantly dies; and we know that it dies, not from the *direct* effects of the lesion, but from the paralysis superinduced upon the nerves below the point of compression, and more particularly from the paralysis of the respiratory nerves. These nerves are cut off from the influences of volition, the respiratory muscles consequently do not act, and death necessarily and immediately ensues. But if the spinal cord were *directly contributory* to muscular and sensitive power, is it not more than probable that it would shew this power under these circumstances? If these nerves really receive a supply of nervous power from the spinal cord, what hinders that supply from being continued when a slight compression is made at the upper extremity only of the organ? It would be exceedingly difficult to give a satisfactory answer to this question; but if we admit that the spinal cord is only an organ of communication or connexion, all difficulties vanish, and we have at once a simple explanation which can account for all the attendant phenomena, both in a state of health and disease."

The following remarks on the cerebellum deserve attention: "The cerebellum is not a simple portion of cerebral matter. It is highly complicated, and probably is the seat of more than that feeling indicated by Gall. This is a supposition which appears more than probable from the following considerations: 1st, The magnitude of the cerebellum. 2d, The complicated character both of the external and internal structure of the part. 3d, The successive additions made to it during its development. 4th, The diversity of form and complication which exist in the cerebella of lower animals. And, 5thly, The fact that injuries that affect *one* part *only* of the mass produce effects on the generative organs. There can be no doubt that part of this organ is the seat of the instinct of propagation. What the functions of the other lobes may be we cannot tell, and it is useless to conjecture." The fifth consideration seems to us questionable.

On the minor importance of a knowledge of the intimate tex-

ture of the brain the author says : " Phrenology leads us to draw conclusions from the *form* of the brain regarding the functions of the individual parts ; and these conclusions, if true, can never be affected by any subsequent discovery that may be made of the intimate texture of the organ. Gall's primary phrenological observations were made previous to the knowledge he ultimately arrived at of the structure of the brain. But these observations are still admitted to be correct, and they will remain correct whatever notions we may entertain regarding the structure. Gall's phrenological conclusions were not drawn from any supposed anatomical structure. His conclusions were the result of close and accurate observations, and of observations relating entirely to the *form* of the brain. So long, then, as we can prove a relationship between the configuration of the brain and the character of the mental powers, the intimate structure, in determining the truth of this relationship, can at best be only of secondary importance."

It is the opinion of this writer that the brain reaches its full size at the age of seven, and undergoes no subsequent change of dimensions ; but in this circumstance he sees nothing that affects in the slightest degree the fundamental principles of Phrenology : For phrenologists have all along ascribed much influence to the quality and maturity of the cerebral structure, as well as to its size ; " and although it has been proved that the brain attains nearly its full size at the seventh year, it has not been insinuated that its organization is perfected at that period. We know, indeed, that the brain is much softer at the seventh than at the twenty-fifth year. It is obvious, therefore, that after the brain has attained its full size, internal changes are still in operation ; and these changes are as necessary for the full manifestation of the intellectual operations as that of the full external development itself." The author adds in a note :—" To those who have not examined carefully into the matter, the statement in the text may appear startling or incredible, and the palpable increase of size of the *head*, which takes place after the seventh year, may seem a decided refutation of the allegation. But it must be remembered that the increase which takes place after the period above mentioned, is easily accounted for from the growth of parts *exterior* to the brain. In the child at that period, the cerebral *envelopes* are extremely thin ; they afterwards become thicker and thicker by an increase of skull, of fat, of muscle, and of skin : the additional growth of these parts accounting most satisfactorily for whatever increase of size the head may have attained. Some phrenologists believe that the organs grow from the effects of mental exercise even after a very late period in life, and casts of the same individuals at different periods of their lives are adduced in sup-

port of the supposition. In all such cases which the writer had an opportunity of examining, the increase was obviously external, for the *face* had increased in the same proportion. After attaining full growth, the brain, like the eye, neither increases nor diminishes in size; its consistency or density may vary, but we have no reason to believe that any change takes place either in its form or size."

Although we think, with this author, that the fact of the attainment by the brain of its full size at the age of seven would have no influence in subverting the principles of Phrenology, yet we cannot admit the accuracy of the statement of the brothers Wenzel, on the authority of which that fact is assumed. Our own experience is at variance with the assertion, and nothing certain can be determined on the question at issue by comparing, as the Wenzels did, the brains of *different individuals* at various ages. It is only by observations on the size of the *same* brain at different periods of life that the question can be settled. "I have seen," says Dr Spurzheim, "in children of seven, even of three years, larger brains and foreheads than in some adults who opposed Phrenology; but does this prove that the adults had already the same size of brain at their age of seven years, and that the brains of children seven years old do not increase in after life?" As the brain divested of the integuments cannot be observed in the same individual at different periods of life, it would be satisfactory to ascertain its size in a *great number* of children dying at the age of seven, and to compare the average dimensions thus obtained with the average dimensions of the adult brain. On looking into the Wenzels' book, we do not find that they have done this. Were a proper series of observations made, there is little doubt that their assertion would be disproved. That the observations of the Wenzels were very limited, and were rendered fallacious by the comparison of brains of *different* individuals, is evident from various circumstances, and in particular from an incongruity between their observations on the size of the brain and those on the depth of the furrows between the convolutions. Notwithstanding the alleged facts (stated by them on pp. 295 and 296) of the brain reaching its full dimensions at the age of seven, and its full weight at the age of three, they mention, as the result of their investigations, that "the convolutions and furrows do not attain to the same degree of perfection at the seventh year, which the size of the brain enjoys at that age: this is especially proved by the case of the boy of seven years." (P. 298.) On referring to the account of this case, we find that the furrows and convolutions were more numerous than those seen in adults and old people, but were smaller and less rounded, such as are found in aged persons; the furrows being less deep, and

in particular extremely shallow in the superior and anterior surface of the hemispheres. (P. 297). This, together with their sixth conclusion (p. 298), that the formation of the convolutions begins in the middle and posterior lobes, and is then continued to the anterior, accords with the opinion commonly entertained by phrenologists, that the organs of the propensities and sentiments arrive at perfection sooner than those of the intellectual powers.* If the observation, then, be correct, that the convolutions continue to grow after the age of seven, how is this to be reconciled with the previous statement of the Wenzels, that the size of the brain is not augmented after that age? It is evident that if the convolutions grow outwards, the entire bulk of the brain must be correspondingly increased; and that if, on the other hand, they become deeper by extending themselves inwards, the interior parts of the brain must to an equal extent be absorbed, so as to allow of a closer approximation of the bottom of the furrows to the centre. The latter hypothesis, to say the least of it, is highly improbable.

The fifth chapter contains a summary of the mental powers of man, with an explanation of the phrenological nomenclature, and remarks on the size, activity, and combinations of the organs,—on the temperaments, and on the objection that Phrenology leads to materialism. The arguments of those who urge this stale objection are skilfully turned by the author against themselves. We dissent from a statement which he makes regarding Adhesiveness—that “its inactivity produces carelessness about others.” The effect is only carelessness about the *society* of others. On the same page he places the organ of Acquisitiveness “immediately before Destructiveness,” but this must be an error of the press. And here, while adverting to small matters, we may notice that proper names are occasionally misspelt; *Democrates*, *Gallileo*, and *Haslem* do not look well in a scientific volume. Moreover, there are two statements in the introduction which go somewhat beyond the truth: according to our author, “many phrenological societies have

* The original passages in the work of the Wenzels, *De Penitiori Structura Cerebri*, above referred to, are the following:—

“Sexta decima die Januarii 1798, cerebrum incidebamus pueri septennis. Plures quidem inveniebantur sulci gyrique quam in adultis alias senibusque occurrunt, minores autem erant neque adeo convexi, uti in senibus sese offerunt, sulci que minus profundi, inque superiore et anteriore loborum majorum superficie minime excavati.” P. 297.

“Eæ observationes quas hucusque enarravimus facile docent, . . . quarto, cerebri gyros sulcosque in septimo vitæ anno eum nondum perfectionis gradum attigisse, quo cerebri magnitudo hac in ætate gaudet. Testatur imprimis id pueri illius septennis exemplum. . . . Sexto, complures a nobis allatæ observationes docent, gyrorum sulcorumque formationem nonnisi in posteriore medioque loborum majorum parte inchoari, tumque ad anteriorem loborum partem continuari.” P. 298.

been formed" in different parts of the continent; and Dr Spurzheim "travelled over *the greater part of Europe*" teaching the new doctrines. Finally, it is incorrect to speak of the propensities, as the author does on p. 134, as "drags upon our intellectual nature."

The sixth chapter treats of insanity, which is shewn to be a corporeal disease, by the following considerations: 1st, That it is produced by agents affecting the body alone; 2dly, That it is a hereditary disease, and must therefore inhere in the sole hereditary portion of man, his body; and, 3dly, That we see it arising from causes which produce other corporeal complaints, and presenting symptoms which every one must admit have a reference to corporeal organs only—such as headach, pain over the eyes, stricture and numbness across the forehead, dizziness, noise in the ears, and dilatation or contraction of the pupils of the eye. "These symptoms," says the author, "though no other existed, would lead every medical man to suspect a morbid condition of the brain; and, after death, is that condition not found? Were we to answer this question simply in the affirmative, or bid you rely upon the authority of some eminent phrenologist whose opinion we could cite, you might be inclined to receive the enunciation with that distrust which any *ex parte* statement naturally carries along with it. But to place the subject most impartially before you, we would refer to the work of Dr Abercrombie on the diseases of the brain—one of the latest and ablest works upon the subject. Dr Abercrombie is no phrenologist, yet his work is calculated to do Phrenology some service. The dissection of 133 cases is given in that work, and, with the exception of two or three obscure cases from which no conclusion can be drawn, they lead irresistibly to the conclusion, that disease of the brain is uniformly attended with mental alienation, and mental alienation with cerebral disease. In all these cases, the cerebral disease and mental affection hold the relationship of cause and effect; and were our experience on this subject greater than it is, we could infer from the state of the mind the precise state or condition of the cerebral organ." The author's observations on the treatment of the insane are distinguished alike by good feeling and good sense.

The last chapter, being the seventh, is devoted to the principles of education. The principles discussed are the following:—1st, Education does not confer new powers, either mental or corporeal, but merely improves those already implanted by nature; 2d, All the powers of the mind cannot be improved to an equal degree in any individual; 3d, The improvement of any one power of the mind does not affect the strength or energy of any of the other mental powers; 4th, The intellec-

tual powers which are naturally strongest in any individual, should be cultivated to a greater degree than those that are weak ; 5th, Education to be effective must be practical. In this chapter the author states many sound and important views on these different topics. In the section where he illustrates the third principle, some just observations are introduced on the prevalent but erroneous opinion, that the study of languages, which cultivates in a particular manner only one of the mental powers, is calculated to strengthen and improve the intellect in general. "Do we not every day," he asks, "observe that young men who have uniformly stood foremost among their fellow-students, both at schools and colleges, who have shewn the greatest aptitude in learning languages, who have even displayed great philological powers, and whose mind, so far as philology is concerned, may be said to have received the last polish from the hand of the artist, have yet, in the ordinary affairs of life, and in other departments of science, displayed the greatest imbecility ? We do not wish to disparage philological attainments—for the successful cultivation of some professional pursuits they are indispensable ; but their importance ought not to be over-estimated. And those who believe that in learning the meaning of words all the powers of the mind are cultivated, over-estimate the advantages of cultivating a verbal memory, and fall, besides, into a most pernicious error. Do the best philological scholars make the best arithmeticians, musicians, or artists ? Or do they explore, with equal success, the facts and abstractions of physical and metaphysical science ? They do not. Among these departments of art or science there is nothing alike : for their successful cultivation, therefore, other powers of the mind are required ; and it would be as absurd to suppose that a training up of one power would strengthen or affect any other power, as it would be to imagine, that, by improving the organ of touch or taste, we must necessarily render more acute the organ of hearing."

We take leave of this intelligent writer by extracting a passage in which an important suggestion is contained :—

"While cultivating the knowing powers, the reflecting ones should, to a certain extent, regularly be employed ; although, in almost all our plans of education, the knowing powers of children are cultivated to the neglect almost altogether of the reflecting. Children are made to wait till they are fit for a logic or moral philosophy class, before the reflecting powers are brought into action. But the plan is highly objectionable. Every object which presents itself to his daily observation, every subject on which the knowing organs may be engaged, is fitted to call into exercise both Comparison and Causality ; and the child who has been trained to exercise these organs from his

early years, and on subjects of common observation, will, *ceteris paribus*, use them with more effect when he arrives at maturity, and when he directs them to the investigation of truth in science and philosophy. Man cannot become too intellectual; and as his intellectuality depends on the existence of these powers, they should be early and regularly brought into operation. Yet though all the reflecting organs should be cultivated to the highest degree of which they are capable, the observation is not applicable to the knowing organs. All of these organs indeed should be cultivated to a *certain* extent; but when they are pre-eminently developed, these should be cultivated to the partial exclusion of the others, and the individual so circumstanced should engage in a profession in which such powers are peculiarly brought into operation. In this way individuals will be enabled to follow the bent of their inclination to advance the interests of particular arts or sciences, and conduce, consequently, to their happiness and to the greatest improvement of the human race."

ARTICLE IX.

ON THE PROGRESSIVE DIFFUSION OF PHRENOLOGY.

NOTHING can be of greater importance to the disciples of a science which, however firm and sure in its foundations, and however beneficial in its tendencies, has yet to struggle with much prejudiced and interested opposition before a general acknowledgement of its truth and advantages can be obtained, than to become thoroughly acquainted with the strength of their own forces; to know how many hundreds there may be scattered among the millions of their race, who have embraced the cause which they are advocating, and whose efforts are, with their own, continually excited to urge on the progression of that cause.

This knowledge, however, though so highly important upon many grounds, is by no means easy of acquirement. The very causes which would enhance the value of the information, if obtained, tend in some measure to obstruct the means of that attainment. The ridicule and sneer which sometimes meet the Phrenologist in his endeavour to propagate his science, and to which, did he know the numbers who in reality support his cause, he could submit without regard, are the very circumstances, the fear of encountering which, deters many from an open avowal of their faith.

A valuable contribution has been made to this branch of

knowledge by Mr Watson, in his recent publication, entitled, "Statistics of Phrenology." Much information is contained in the pages of that volume, which must be esteemed of considerable interest by the Phrenologist, and which must prove a source of great encouragement to him in his anticipations of the prospects of the science. We are there presented with details as to the number of societies already existing in Great Britain, whose special study is Phrenology, and cannot fail to be astonished at the extent of these bodies,—exceeding, as they do, the number of separate societies devoted to the investigation of perhaps any other scientific subject; we find there a catalogue of works printed, and of authors who have written, on the subject,—a catalogue which we presume to be tolerably correct, and which excites at once surprise and pleasure at the multitude, as well as the character, of these works, and of these authors; we are made generally acquainted with the relative progress which Phrenology appears to have made in public estimation during successive stated periods, and are informed, in detail, of the progress which it has made in a large number of the cities and towns of England and Scotland; and, finally, we have an estimate of the numbers who are either professed and avowed believers in the truth of the science, or who, though not openly avowed, are actual believers.

Highly valuable are the details thus conveyed, and gratifying and useful must be the perusal of the volume to every sincere phrenologist. We trust, however, that we shall not be esteemed captious, if we state that the item last mentioned seems to us in some degree defective, and not quite so satisfactory in some respects as are the others. The author does not appear to have such data on this particular point, as to authorise any very accurate estimate of numbers; and we are led to suspect that our opponents may turn round upon us with the obvious question:—"What evidence have you of the correctness of these statements?—they appear little better than arbitrary."

Considering the information as to the actual numbers of those espousing the cause of Phrenology to be an important desideratum, it will not be amiss, perhaps, if we endeavour briefly to examine by what method we may be best enabled to form a just estimate upon this point.

With this object in view, we design in the following observations to examine—

1st, Among what classes and ranks we should expect the greatest opposition to, and among which we may fairly look for the greatest diffusion of a knowledge of Phrenology.

2dly, The reasons of the *local neglect* of Phrenology.

3dly, The modes of ascertaining the extent of the diffusion

of Phrenology among those classes where that diffusion may be rationally expected.

4thly, How far that diffusion has extended.

5thly, By what means that diffusion may best be still further urged.

As to the first point:—We have often thought that the objections of the opponents of Phrenology, and the expectations of phrenologists themselves, are unreasonable as to the classes of individuals to whom they allude as disavowing or avowing their acquiescence in the doctrines of Phrenology. A host of names is called over, comprising individuals well known as the leading doctors in other sciences, and our opponents say to us exultingly—"Here are individuals of the highest talent, men accustomed to investigate scientific questions, and these have not become phrenologists; therefore we withhold assent." The tone of our friends is little less adverse:—"Why is it," they exclaim, "that men thus engaged in exploring the fields of science have not yet, by a careful and accurate examination of the principles and evidence of Phrenology, induced a conviction into their own minds of its truth and value; is not this fact in itself somewhat remarkable, if we are to consider those principles and that evidence as having just foundation?"

The consequences drawn in each of these cases appear to us equally unwarranted and inconclusive. The individuals to whom allusion is thus made are professors, each of some particular science; and to that alone, or chiefly, does each one devote his attention, little regarding the discoveries or theories announced in connection with others. It would surely be but a poor argument against the truth of the discoveries of a Davy, that a Stewart or a Buckland had not yet expressed his confidence in their correctness. Why with any greater appearance of reason should the names which stand high in geological, in mineralogical, in botanical, or in philological science, be quoted as not being at present attached to the list of believers in Phrenology, and as therefore affording a good argument against its truth? The latter science is, as these professors conceive, in no apparent way connected immediately with the sciences to whose investigation their attention is directed; and it would be unreasonable to expect that they should devote their time to the examination of a comparatively recent science, the importance of which has not yet been forced immediately upon their attention. Not that we would be understood as implying that a knowledge of Phrenology would be otherwise than highly beneficial to every man who enters the temple of science, be it at whatever portal, but merely as stating, that this advantage cannot yet have become generally evident.

Phrenology at present stands on the footing of the other

sciences;—it is considered as a simple study *sui generis*, and as the peculiar object, therefore, of the research and investigation of particular individuals. The science of metaphysics has hitherto been one whose professors have been perhaps less numerous than those of most other sciences; and the system of Phrenology being that which supersedes and must ere long supplant metaphysics, if its professors are few there can be no just cause for surprise. The most just cause for surprise which we can perceive is, that already, in the very short space of time during which the new system has been before the world, so many professors of other—and at first sight, quite unconnected—sciences have become avowed and practical Phrenologists.

The only species of assent which can fairly be expected to be expressed by the body of the great in science and philosophy, educated according to the present systems, is the passive assent of silent acquiescence. Seldom are they called upon for an opinion; and when they are so, what is their almost universal answer? “We have not examined the subject, but it seems a fanciful theory.” It seems a “fanciful theory” to them, simply *because* they have not examined the subject; not because, having thoroughly pursued the train of argument and evidence adduced by the phrenologist, they have arrived at a negative verdict. “Fanciful theory” it is called by them simply because, not having examined it, they do not understand it or its claims, or the nature of its pretensions; and because, having been educated with different views, they feel the natural repugnance which ever exists in the human mind to acknowledging an alteration in those views without sufficient reason,—and a sufficient reason they cannot have until they have devoted much more leisure than they are able or willing to give to a close examination of the principles and evidence upon which Phrenology is founded.

The candid opponent of Phrenology will see, we think, in these observations the real ground of the passive non-acquiescence of scientific men in general in the doctrines of Phrenology. It is not until a favourable impression of the science is firmly established in the minds of all from a perception of the beneficial tendency of the practical results which flow from its diffusion and application, that a passive acquiescence will be yielded by these parties. They will then yield that species of assent which alone can be expected from them; just as the chemist, the botanist, or the geologist now yields his passive acquiescence in the deductions of astronomy. These latter, when first announced, were received with incredulity; but having, through a long course of years, been confirmed by all who have thoroughly investigated the subject, others now bestow their assent upon the principles of the science, although at first they might, and we

know *did*, consider it as a fanciful and even an impious theory. It is not that all the great in science and philosophy have themselves examined the evidence upon which astronomy is founded; but it is that the system having been uniformly found, by those who have examined into its evidence and principles, to be consistent, harmonious, and thoroughly reconcileable with all known and obvious phenomena, and the truth of its principles having been found to be corroborated by every fresh discovery, it has at length taken its place among the established sciences, and a silent but implied assent—passive merely—has been given to it by all professors of each other science.

And so it will be with Phrenology. When it is rendered clear that every present circumstance, and fresh discovery, harmonizes with the principles and doctrines of that science, and that by its means effects are wrought and phenomena explained hitherto considered as inexplicable, then will a passive assent be yielded to its truth by those who may never have examined one iota of its evidence. Its principles will be universally acknowledged, but its practice must, according to the very doctrines which it teaches, be ever confined to particular individuals.

The phrenologist will know that there is another cause in operation which must prevent some of the professors of other sciences from expressing their acquiescence in our views, we mean their possessing a phrenological development which will not allow them, even if they should examine the evidence, to perceive the relations between phenomena and the conclusions drawn according to the true principles of inductive philosophy. We will say nothing here of the effect of *Love of Approbation* upon many minds, on the first announcement of a new system opposed to the prejudices of antiquity, fashion, and opinion, though that may not be without considerable influence in causing an *avowed* dissent.

The conclusion, then, which we draw from the above observations is briefly this:—that it ought to excite no surprise in the mind of the friend of Phrenology, and ought to be considered as no valid argument in the mouth of the opponent of Phrenology, that the body of the great in science and philosophy in general, have not hitherto expressed their acquiescence in the doctrines of the phrenological system.

Having thus endeavoured to shew that the doctors and professors of other sciences cannot in reason be expected to examine into the evidence connected with, and cannot therefore be qualified to offer a correct and impartial opinion concerning, the principles of Phrenology, we proceed to inquire if there is any other class of men who may be expected to withhold assent, or to express a more decided dissent from the truth of the science.

Two classes of individuals present themselves as being in all

probability thus disposed, and these are those whose office it has hitherto been to expound, but upon far different principles, the subjects of which Phrenology takes cognizance. These two classes, it needs hardly to be stated, are the *metaphysicians*, who perceive in Phrenology a science which professes to explain upon more exact and just principles those mental phenomena concerning which they have been in the habit of dogmatizing after their own fashion, and the *physiologists*, who cannot but take it amiss that the structure and uses of the human brain, both of which have hitherto been considered inexplicable and complete *terre incognite*, having evaded their most careful investigations, are thus plausibly and consistently announced by the followers of a novel system.

It is needless to enter here into the causes which operate on the minds of these two classes of individuals. They must be sufficiently obvious to every intelligent observer. That they are strong and powerful there can be no doubt, and the present generation must have passed away before they can cease to operate. Any individuals gained over from these bodies, must be considered, therefore, as doubly valuable, and as affording double testimony to the soundness of the more recent system. That many names connected with them are enrolled among the firmest advocates of Phrenology, should therefore be looked upon as just cause for congratulation to phrenologists, and should afford to their minds great confirmation of the correctness of the views which they have adopted.*

We thus perceive, that when the phrenologist looks around and endeavours to form an estimate of the numbers who have joined his ranks, he may fairly calculate upon excluding a large proportion of that class of persons usually termed "scientific men," and the whole body of established metaphysicians and physiologists: if he finds any friends among either of these classes, he may justly set them down to the credit-side of the account as clear and unanticipated gain. The class among whose members he must look for support, is that large body of the public attached to no exclusive branch of science, and biassed by no special prejudice against his views. If, therefore, upon examination, he finds that in proportion as the doctrines of Phrenology have been expounded to this class, they have been received, and the cause of their truth espoused, he may justly congratulate himself upon the flourishing and progressing state of the science which he advocates. He must not, however, be too sanguine. He must recollect that there are necessarily considerable drawbacks to the rapid diffusion of every system founded upon novel principles. He must remember, that though the members of this class are, comparatively speaking, free from prejudice either

* See "Phrenology Vindicated," p. 24.

in favour of or against any particular system or science, yet they are somewhat accustomed to look up for information and guidance on these subjects to the very parties who have been last specified as being, for obvious and natural reasons, the most opposed to his system. There are other circumstances, too, which tend to retard the diffusion of a science like Phrenology; circumstances which it is unnecessary here to specify, but which contribute, and perhaps hardly in a minor degree, to check its rapid progress.

The existence of the various checks thus noticed being borne in mind as causes likely to influence the minds even of the most impartial among all classes, the inquirer, paying some attention to the suggestions which will presently be stated, may commence his calculations as to the numbers of those who are favourably disposed to the views which he entertains.

One peculiarity will soon become discernible in the course of his observations, viz. that the progress of Phrenology has been in no slight degree *local*—rapid and soundly based in some places, slow and imperfectly promoted in others. To the causes of this peculiarity we shall next direct the attention of the reader, as in so doing we shall perhaps remove some difficulties connected with the points to which we shall subsequently have occasion to allude.

(To be continued.)

ARTICLE X.

CASE OF DISEASE IN THE ORGAN OF COMBATIVENESS ON THE LEFT SIDE, attended with Change of Temper; and of Disease in the left Corpus Striatum, attended with Loss of Knowledge of the Signification of Words. Reported by GEORGE COMBE.

A GENTLEMAN, who is designated Mr N. in a report of his case published in the Edinburgh Medical and Surgical Journal, No. 129, by James Craig, Esq. surgeon, Ludgate Lodge, Ratho, was the son of a farmer in one of the midland counties of Scotland. He rose to eminence as a diplomatist. He was educated at the same parish-school with my father, who told me the incidents of his youth. The events of his mature age are recorded in the history of his country; and when, in his later years, he retired to a small estate which he had purchased in the county of ———, I continued to hear from friends who lived on terms of intimacy with him, every important occurrence that befel him, and also his habits and occupations. In August 1832, he was suddenly seized with an affection of the head, accompanied by loss of the power of using words, and a change of temper from uncommon

mildness to great irritability. I obtained information from time to time from friends who were in frequent communication with him, concerning his mental manifestations, which were to me extremely interesting. I repeatedly expressed a desire that great attention should be paid to the examination of his brain after death; and when at last, in the month of July 1836, he was cut off by fever at the age of 98, this wish was not forgotten. On the 15th of that month, Mr Craig, before mentioned, waited on me and invited me to attend the examination of Mr N.'s brain on Saturday the 16th; adding, that, as he intended to publish the case himself, it should be understood that I should not publish any report of it until after his had appeared. I agreed to this condition, and have fulfilled it. His report having now been published, I proceed to give my own; and as there are differences—some of them important—between the two accounts, I shall present the case in a documentary form, and leave the facts to speak for themselves.

I received the following note from Mr Craig:—

"MY DEAR SIR,—May I trouble you at your earliest convenience to write out for me an account of the morbid appearances observed in Mr N.'s brain. I do not like to trust to my memory, not having taken notes during the dissection. I am, &c. JAMES CRAIG."

"RATHO, 21st July 1836."

To this note I returned the following answer:—

"MY DEAR SIR, EDINBURGH, 22d July 1836.

"In compliance with your request, I enclose my notes of the morbid appearances of Mr N.'s skull, with remarks. I shall feel obliged by your correcting and supplying any thing that is wanting or erroneously stated. I hope you will be able to understand it, as I use the phrenological organs to describe the localities of the lesions.

"I understand that I shall not publish these notes until after you and Dr Abercrombie have published; but I presume I may do so then. The name may be suppressed. I am, &c.

"GEORGE COMBE."

The notes enclosed in this letter shall immediately be given. In some instances in which my own information regarding certain details was not precise, I put a pencil note on the margin of the notes, addressed to Mr Craig, requesting him to correct what was erroneous, and supply items of information that were left deficient. He very obligingly did so; and the notes, as now printed, embody his additions and corrections. Of course, I do not regard him as at all committed to my phrenological opinions and explanations: the additions contributed by him re-

lated merely to facts in the case or in the dissection. To prevent all misconceptions, I have here printed in italics the words which he supplied.

Notes of Mr N.'s case, drawn up by Mr Combe.

" At ——— 16th July 1836. Present—Dr Abercrombie ; James Craig, Esq. surgeon, Ratho ; R. Flockhart, Esq. his assistant ; A—— J—— Esq. W. S. ; George Combe.

" The head of Mr N., who died on 15th July, was examined by Mr Craig and Dr Abercrombie. The following are Mr Combe's remarks:—

" Mr N. was ninety-three years of age, having been born in October 1742.

	Inches.
The skull, from Concentrativeness to Comparison, below the integuments, measured	7.2
From Destructiveness to Destructiveness,	5.6
The inner diameter of the skull, from the lower edge of Concentrativeness to the top of Individuality,	7.
Inner diameter from Destructiveness to Destructiveness,	5.3
The depth from Veneration to the corpus callosum was	1.6
From Firmness to do.	2.
From Benevolence to do.	1.0

" The development of the organs was as follows:—

Amativeness, rather large.	Ideality, full.
Philoprogenitiveness, very large.	Wit, full,
Concentrativeness, full.	Imitation, { large on right side, a { little less on left.
Adhesiveness, rather large.	Individuality, large.
Combativeness, large.	Form, large.
Destructiveness, rather large.	Size, large.
Secretiveness, rather large.	Weight, large.
Acquisitiveness, full.	Colouring, full.
Constructiveness, rather full.	Locality, rather large.
Self-Esteem, large.	Number, rather large.
Love of Approbation, large.	Order, large.
Cautiousness, large.	Eventuality, full.
Benevolence, very large.	Time, moderate.
Veneration, large.	Tune, full.
Firmness, very large.	Language, large,
Conscientiousness, rather large.	Comparison, large.
Hope, large } on right side,	Causality, full.
Wonder, large } less on left.	

" The coronal region was remarkably large ; the anterior lobe was rather high, and of average but not of great length ; the temperament was nervous and sanguine.

" The portion of the skull-cap which covered the right hemisphere was regular, and of a moderate thickness ; the portion which covered the left hemisphere was irregular in thickness ; the inner table was thickened at the portions which covered Imitation and Wonder. The outer surface of the skull covering the left hemisphere appeared more depressed than the right

at these organs, and there was a thickening of the bone within. The super-orbital plates presented each a deep transverse furrow at the posterior portion, corresponding to the organ of Language, and indicating its great size. The middle of each super-orbital plate was raised, indicating a very moderate development of the organs of Colouring. The convolutions lying on each side of the crista galli, constituting the organs of Form, were very large.

" On attempting to remove the upper portion of the skull, the adhesion of the dura mater was very great. When the attachments were cut, and the skull was removed, strong marks of chronic inflammatory action presented themselves on the falx, and on the dura mater, covering Firmness, Veneration, Benevolence, Imitation, and Wonder, on both sides. The dura mater there, felt like buckram.

" There were small fungous depositions on the brain itself at Veneration and Firmness.

" There was effusion between the convolutions of Imitation and Benevolence.

" The brain was examined by cutting thin slices horizontally, commencing with the coronal surface of the right hemisphere. The whole of this hemisphere was found to be sound, except a tubercle about the size of a large barleycorn, at the surface of the brain, at the organ of Combativeness. The right ventricle was sound.

" The left hemisphere was examined by cutting thin slices, commencing at the coronal region. It presented appearances of vascularity, but no positive disorganization was found until the dissection reached down to the organ of Combativeness. Here a cavity was found occupying the centre of the organ of Combativeness, and extending into Adhesiveness and Philoprogenitiveness. There had been a deposition of blood, which had been absorbed, leaving a cavity with a yellowish membrane. The cavity rather exceeded two inches in extent; it ran obliquely outside of the left lateral ventricle, within half an inch of the surface of the organ of Combativeness. The diseased structure approached close upon the ventricle, but did not communicate with it. The ventricle was all sound.

" The brain was then taken out of the skull, and the base was examined in the same manner. There were evident marks of chronic inflammatory action in the bloodvessels and pia mater. *Great vascularity throughout.*

" The right hemisphere was sound in structure.

" In the left hemisphere the internal carotid artery, at the crossing of the optic nerves, and the membranes at the point of junction between the middle and frontal lobes, bore strong marks of chronic inflammatory action; the arteries were brittle,

and the bloodvessels highly vascular, particularly where Alimenterness joins Language.

"In the left corpus striatum a small cavity was found, exactly of the same character with that found in the posterior lobe. It was situated about three inches backwards from the surface of the skull at the organ of Colouring, about a quarter of an inch farther back than the sella turcica, and about half an inch to the left of it. The extent of the cavity might be a quarter of an inch. Each organ extends from the surface to the medulla oblongata; so that this lesion was directly in the line of the fibres of the organ of Language, proceeding from the surface at the posterior edge of the super-orbital plate to the medulla.

"There was a tubercle on the posterior part of the medulla oblongata.

"The cerebellum was sound.

"The thorax was opened. The lungs remarkably healthy; *the left lung adhering extensively to the pleura*; and effusion in the cavities. The semilunar valves of the aorta were considerably ossified. A good deal of effusion was found in the pericardium. The aorta ascendens was enormously large, *almost aneurismal, but structure sound*.

"Mr N. was a native of West Lothian, and received the rudiments of his education at the parish-school of ———. He was educated for the Scotch Church, *and was a candidate for Professor Hill's chair in Edinburgh University*. He went abroad as tutor in the family of a chargé d'affaires (*Sir Gilbert Elliot*) from the English Government to ———. The principal fell sick, and the tutor conducted the business of the consulship, and so distinguished himself, that he was subsequently employed by the British Government in various diplomatic capacities. He subsequently rose to the highest employments as a British ambassador, and resided for nine years at ——— in that capacity.

"He stated that in his youth he was passionate, which corresponds with his large Combateriness and ample Destructiveness. In middle and later life he was remarkably mild in temper, amiable, benevolent, just and good. This is in accordance with the large development of the moral organs, which decidedly predominated over the propensities.

"He was shrewd, penetrating, discreet, and conciliating; yet firm, emphatic, and decided. His intellect was clear and practical, dealing easily with the details of business; and he spoke, it is said, twelve or fourteen languages—(*he understood fourteen, and could talk ten*). He was extremely active. As a private individual he was the most amiable of human beings, universally beloved, and very highly esteemed.

"During the last fifteen years of his life he resided on his

own estate, five miles west from ———, and devoted himself to the improvement of the parish-roads, and every species of usefulness which he could accomplish. He expended *between* L. 600 and L. 800 of his own funds on the roads, above all his allowances from the public assessments. In this way he gave bread to the industrious poor, whom he employed as labourers; and left a rich legacy in admirably made roads to the parish.

"About twelve years before his death he began to see spectral illusions, which continued at intervals to appear till he died. [*See Dr Abercrombie's work on the Intellectual Powers*, 1st Ed. page 349; also *further remarks in last Edition.*] They were human figures of all sizes, and in the costumes of all the *ancient* nations. Sometimes they were deliciously small and beautiful miniatures; sometimes they were robed in the ancient costume. His most frequent and pertinacious spectral visitor was an old woman with a cloak, such as were worn by the Scotch peasantry *in his younger days*. *He also frequently saw his own countenance as a youth, and gradually becoming older, and disappeared.* He was at all times aware that these were illusions.

"On 21st August 1832 he was taken ill, his temper suddenly changed, and he became extremely irritable. Simultaneously with this change of temper he lost the power of using language to express his thoughts. He could articulate perfectly, and he was always uttering words; but they ceased to be significant, and consisted of a mixture of all the languages which he had learned. Occasionally, he mustered a very few English words in their proper order and signification, and was intelligible; but his speech immediately again fell into confusion. His intellectual perceptions meantime continued clear. He understood business, comprehended spoken language addressed to him, and used signs of things to express his meaning, so far as he could. He continued to the very close of his life excessively active for a man of his age, drove out in his carriage *every day*—(*I do not think he was three days in the house*)—and was actually in Edinburgh the ninth day before he died. At one time he had often, for several mornings in succession, at breakfast, held out a piece of bread to the servant, and addressed to him a great deal of gibberish, and was very angry because he was not understood. *He went to* ——— *into a baker's shop, bought a quartern loaf, paid for it, and carried it away under his arm. When he arrived at* ———, *he presented it to his butler, and said, 'That's what I wanted.'* At the next meal he cut a portion of it, and a portion of the bread which the family were using, placed them together, pointed out the superior quality of the ——— bread, and enabled the whole family to comprehend that he had been all along complaining of the bad quality of the bread which was provided for him. *He seemed always*

to ascertain the quality of the bread by the SMELL. 'Twas uniformly that sense he trusted to.

"These mental manifestations correspond with the phenomena exhibited by the brain.

"His temper changed from mildness to irritability, and there was extensive disease in the left hemisphere, at the organ of Combativeness; that organ remaining entire in the right hemisphere, and Destructiveness on both sides being sound. He enjoyed so much power in the organ of Language as to be able to understand speech when addressed to him, even to comprehend the newspapers when read; but so little as to be incapable of commanding words voluntarily expressive of his ideas;—and the organ of Language on the right side was entire, while there had evidently been effusion in the corpus striatum, in the left hemisphere, a little way backwards from the surface of the organ of Language in the line of its fibres. He saw spectres, but knew them to be illusions; and the state of the dura mater and bloodvessels shewed that there had been long-standing inflammatory action in the regions of Imitation and Wonder on both sides. He had been excessively active in mind for a man of his age; and there were general marks of chronic inflammation in the membranes and bloodvessels of the brain."

A few physiological remarks by me followed these notes; which as they are mere speculations attempting to account for the facts, I omit at present, desiring to confine this report exclusively to matters of fact.

Mr Craig returned these notes with the following letter:—

"MY DEAR SIR,—I return you the notes with many thanks. The diseased appearances correspond exactly. As soon as I get my notes put into a legible form, I'll send them to you for perusal. I will also let you know when I publish his case.
Yours very truly,
JAMES CRAIG.

"LUDGATE LODGE, 25th July 1836."

In the beginning of October I received, with Mr Craig's compliments, a separate copy of "History of a Case of Spectral Illusions, with subsequent loss of memory of words and names; with appearances on dissection. By James Craig, Esq." &c., extracted from the Medical Journal before mentioned, and having subjoined to it "Pathological Observations on the foregoing Case, by David Craigie, M. D." &c. I was then on the eve of leaving home for Aberdeen for three weeks. On my return I addressed the following letter to Mr Craig:—

"EDINBURGH, 3d November 1836.

"MY DEAR SIR,—I received your printed report of the case of Mr N. when I was preparing to go to Aberdeen, and had

not time then to acknowledge the receipt of it, and to thank you for your attention. In your note to me of the 25th of July you said, 'As soon as I get my notes put into a legible form, I'll send them to you for perusal.' This seems to have escaped your recollection, as the notes were not sent. I regret to observe that you omit all notice of the change of Mr N.'s temper from a state of placidity to one of irritability at the time when his embarrassment in expressing his ideas by language occurred. The paramount object in reporting a case of this kind, is to state the *whole* facts and circumstances; as it often happens that the omission of some, not only leaves the report incomplete, but gives a different character to the facts reported. It has been made a charge by the phrenologists against non-phrenological medical practitioners, that when diseases occurred in parts of the brain devoted to the manifestation of the propensities or sentiments, they did not take due pains to ascertain and report the state of the related feelings in the patients. In the present instance, this omission is important. According to your report, a large cavity appeared in the region of Combativeness on the left side, the corresponding part in the right hemisphere being entire; but not one word is said about the temper of the deceased. As my notes, which you perused before drawing up your report, particularly adverted to this point, I did not expect to see it overlooked. I shall now publish my report under the same name with yours.

"I regret to observe, that you have omitted the *e* in my name in your Report, and also my christian name, in consequence of which, no one who reads it will discover that I was the individual who was present at the dissection. I am, &c.

"GEO. COMBE."

To this letter the following answer was received:—

"MY DEAR SIR,

LUDGATE LODGE, 5th November 1838.

"In reply to yours of the 3d, which I received this morning, I have to state, that my promise did not escape my recollection; the printed copy of Mr N.'s case was what I meant for your perusal ('tis verbatim from my notes), and I sent you a copy the very day it came into my possession.

"As to the omission you complain of, I have distinctly to state, that the irritability of temper you allude to never once came under my own observation, nor do I believe it existed, except when Mr N.'s wishes or orders could not be understood,—in short, when his desires were virtually disobeyed,—or when he came into contact with those against whom he (from a very evident cause) looked with disapprobation, of whom I knew several; and in all these cases, 'twas more an expression of dissatisfaction or impatience than irritability. I believe few

men, if any, who had been during a long life accustomed to such implicit obedience as he was, would have remained placid when their own servants, as well as others, (as Mr N. must have thought) disregarded their commands. I have, moreover, repeatedly heard the remark made by those who were in the habit of seeing him frequently after his illness, 'that he was the same affable polite person as ever.'

"My report was submitted to the perusal of Drs Abercrombie, Davidson, and Thomson, before it was printed, all of whom had frequent occasions of testifying its accuracy. No one had such opportunities of observing the case in all its features as myself, to which, throughout, I paid a very strict attention. From what rumour or report you derived your information, I am at a loss to comprehend; but I feel assured, if you had had the frequent personal opportunities of observation which I had, I cannot believe you would have formed the opinion you now maintain; and I deny, *in toto*, the suppression, omission, or misrepresentation of a *single fact* which occurred to my observation during the progress of the case,—indeed, had I not wished to be scrupulously accurate, I would not have made its history so unusually, nay unnecessarily long: whatever the 'general charge,' therefore, may be against 'non-phrenological medical practitioners,' in this instance I do believe it to be inapplicable.

"My report, as it is printed to page 17, where it commences the account of 1835, was drawn up and perused by several individuals at least twelve months before Mr N.'s death; it is, therefore, not the fact when you say 'I perused your report before drawing up mine.' I wrote to you requesting your notes of the dissection, because you noted them down on the spot, to compare with and insure the accuracy of mine, which were written when I returned home; and I saw with surprise in your report, the statement, new to me, and made for the first time, charging Mr N. with irritability of temper. I marked either in pencil or with ink 'incorrect,' or some such expression, and afterwards rubbed or scratched it out, leaving you to judge of the *actual facts* of the case as reported by me.

"I regret extremely the unintentional mistake regarding your name and surname, which never occurred to me until I received your letter. I could have no possible motive for not wishing it made perfectly public, and have uniformly stated unreservedly, that you were present at the post-mortem inspection. I am, &c.

JAMES CRAIG."

I addressed the following letter to Mr Craig:—

"MY DEAR SIR,

EDINBURGH, 18th November 1836.

"I received your letter of the 5th of November, and beg to

mention, that I am now printing Mr N.'s case from my notes, adding my letter to you dated the 3d of November, and your letter to me dated the 5th of November, *ad longum*. I have given a statement of the grounds on which I made the remark, that there had been a change of Mr N.'s temper, contemporaneously with the disorder of the function of language. I sum up the whole by some remarks on the points in which your report and Dr Craigie's differ from mine. I shall send you a copy of the whole as soon as published. I am, &c.

"GEO. COMBE."

The evidence on which I made the statement that Mr N.'s temper changed contemporaneously with his loss of the use of language, shall now be given.

I addressed the following letter to Dr Mackintosh:—

"MY DEAR SIR,

EDINBURGH, 18th November 1836.

"I beg leave to refer you to the report of the case of Mr N., in the 129th No. of the Edin. Med. and Surg. Journal, in which I see your name mentioned as having been in consultation, and to the enclosed proof of my own report of the same case; and to request that you will inform me whether you know any thing about a change of temper in Mr N., contemporaneously with his loss of the power of using language. I am, &c.

"GEO. COMBE."

To this letter Dr Mackintosh returned the following answer:—

"MY DEAR SIR,

EDINBURGH, 19th November 1836.

"In reply to your note of yesterday's date, I have to state that there is a distinct impression on my mind of a remarkable change of temper in Mr N.'s case, contemporaneously with his loss of power of using language correctly.

"I had several interviews with his confidential servants, to enable me to make up my mind whether restraint should be employed, as such a step was touched upon in consultation. Indeed, my belief is, that one of my visits to ——— was to assist with others in determining whether restraint should be employed. All his servants led me to believe that he was excessively irritable and obstinate in temper, difficult to please, and sometimes unmanageable, from the period of his attack; and some of them contrasted this conduct with his usual kind and easy manner towards them. At my visits there was always some management necessary before I was introduced, and he appeared impatient, and often so irritable, that I was guarded in my expressions, and always made my retreat as soon as possible. On entering the room, however, he always received me in the most polite manner. I am, my dear Sir, yours truly,

"JOHN MACKINTOSH."

The following declaration was made to me by the individual who subscribes it, in presence of two of the personal friends of Mr N.

Statement made by John Smeal, son of Joseph Smeal, gardener to Mr N.

" My father was gardener to Mr N. for thirty-four years before his death. I have been nine years in the garden under my father. Before Mr N. was taken ill in 1832, he was remarkable for mildness of temper, and in speaking to his servants he was kind and civil. At that time a striking change took place in his temper. In coming into the garden, if he saw a straw or a leaf on the walk, he flew into a passion. He became extremely irritable towards my father, and at one time struck him; at another time he threw a lock at him, and on a third occasion spat in his face. I felt myself obliged to go out of the way occasionally, when I saw him coming, and hid myself among the bushes to avoid him. My father and myself did every thing possible to please him. At one time my father was so much distressed by Mr N.'s bad temper, that he spoke of giving up his situation, as he could not manage with him. Mr N.'s condition was variable. On some days he was pleasant, on other days the least thing would have put him quite out of temper altogether. He continued in this condition to the last. The same occurrences took place with his other servants, and I could give a great many similar examples. There was only one servant who was ever heard of as being inattentive to Mr N., and with whom he had just cause for offence. His other servants have been from ten to fifteen years in his service, and are respectable men, and his temper was equally trying to them. Mr Craig told my father at one time, that he did not think that he could continue to visit Mr N., on account of his bad temper towards him. Mr N. was aware that he was not intelligible. I often had occasion to tell him that I did not understand him, and he shewed me by signs what he wanted. He knew that my father did not understand him when he struck him and spat on him as before mentioned; and when my father told him that he could not any longer support his temper, and must give up his situation, Mr N. burst into tears, took him by the hand, and, pointing to his own bosom, made my father to understand that he wished that he would not leave him as long as he lived. My father would confirm all that I have said, for he and I were talking about the matter last night.

* 19th November 1836.

JOHN SMEAL."

Dr Craigie, in his remarks on Mr Craig's report, observes that Mr N. was not insane;—and all the evidence to which I

have had access confirms this view of the case. I have been told by a Bank-director that Mr N. continued to draw sums from his cash-account, on his own orders, almost to the time of his death. The orders were not regularly subscribed, but he presented them himself, and the money was paid to him. All these authorities concur in saying, that in his intercourse with persons of his own rank, in the way of business or friendship, Mr N. generally continued polite and affable to the last, although there were exceptions to this rule.

Mr Craig, in his letter dated the 5th of November, seems to admit that when Mr N. was not understood, and when his orders were virtually disobeyed, he became irritated. The real questions are, 1st, Whether his temper changed at the time of his malady? I have endeavoured to shew that it did; and farther, a very intimate friend of Mr N., after reading Mr Craig's letter, says in a note to me: "I never supposed that any one who saw Mr N. in his latter days, and knew him previous to his illness, would have called in question the alteration in his temper." And, 2dly, Whether his bad temper was morbid, or the healthy action of his faculties in his peculiar situation? I infer it to have been morbid, *first*, Because he was not insane, and was aware that he had become unintelligible, and that, therefore, his servants were not to blame for not understanding him. He in general gave effect to this knowledge in his intercourse of friendship or of business with persons of his own station; and if there had not been morbid irritability in his temper, he would have restrained his passion also in regard to his servants. *Secondly*, Because his ebullitions of violence, such as are described by John Smeal, were numerous, and occurred without the existence of causes sufficient to have provoked them in his mind when in a state of health. *Thirdly*, Because he was a man not only of courteous but of courtly manners, and unless impelled by morbid irritation, was incapable of such acts as striking, or throwing a lock at, or spitting on a servant whom he esteemed, and whom he entreated with tears to continue in his service till his death, even after he had treated him with this violence and indignity.

Remarks on the Report of the case of Mr N., given in the Edinburgh Medical and Surgical Journal, No. 129.

When Mr Craig called for me on the 15th of July, and invited me to attend the examination of Mr N.'s brain, I mentioned to him that Mr Hood of Kilmarnock had, in the Phren. Trans. and Phren. Journ.,* reported a case very similar to that

* Phren. Trans. p. 236; Phren. Journal, vol. iii. p. 26; see also Combe's System, 4th edit. vol. ii. p. 554.

of Mr N., in so far as related to the diseased state of the faculty of Language; and that, on dissection, that surgeon had found in the left hemisphere a lesion of the parts, which terminated "at half an inch from the surface of the brain, where it rests over the middle of the super-orbital plate." Two small depressions or cysts were found in the substance of the brain, "and the cavity, considered as a whole, expanded from the anterior part of the brain, till it opened into the ventricle in the form of a trumpet. The right hemisphere did not present any remarkable appearance." I observed to him that the situation of this lesion corresponded to that of the organ of Language. After the dissection of Mr N.'s brain, and after Dr Abercrombie had left us (for, as he was much pressed for time, he did not wait to see the opening of the thorax), I called to Mr Craig's recollection the resemblance of the lesion in the left hemisphere in the present case to that which had presented itself in the case of Mr Hood's patient, when he acquiesced in the justice of the remark.

After receiving back my "Notes" on the 25th July, no communication was made by Mr Craig to me until he sent me his own report, by that time published in the Medical and Surgical Journal. I read it with much interest, to see how the bearing of the facts on Phrenology should be treated; and I was much edified by the result. It is well known that that Journal at first violently opposed, and that it has subsequently treated with contemptuous silence, the facts and doctrines of the phrenological school. In the present instance matters were managed as follows:—Mr Craig furnished his long report of the mental manifestations of Mr N., dilating on his spectral illusions and impaired language, but omitting entirely all notice of his change of temper; to which he added a simple description of the morbid appearances of the brain, without saying one word on any supposed connexion between the mental phenomena and them. This report was handed over to Dr Craigie, the editor of the Journal, who wrote an ample dissertation "On Spectral Illusions," and on "the State of the Brain causing them," but in which, from beginning to end, he does not permit even a hint to escape him of any thing observed or written by phrenologists in elucidation of this subject. He also, faithful to his text in Mr Craig's report, knows nothing and says nothing of any change of temper in the patient; and of course the large cavity in the left organ of Combativeness is not connected with the phenomena to which, according to all appearance, it gave rise. So far from connecting it with the change of temper, Dr Craigie ascribes to this lesion the loss of the use of words, thereby applying the morbid appearances as directly as possible in contradiction to Phrenology. He says: "*The ex-*

planation of this occurrence" (the loss of the use of words), "and of the symptoms which took place on the 21st of August 1832, I think *is to be found in the state of the posterior lobe of the right*" (he probably means the *left*) "hemisphere, as disclosed by inspection. It is clear that, whether the orgasm which had terminated in this process of softening took place suddenly or slowly, it did not co-exist with the spectral illusions, nor could it have taken place within a few months or even days before the fatal termination. Every thing, on the contrary, in the case concurs to shew that at this time, perhaps some months previously, for instance in May 1831, a degree of vascular orgasm and excitation had commenced *in this part of the brain*; that after going on for some time it had undergone a temporary abatement; *that it had given rise to the loss of memory*, then remarked; and that, after the first abatement, it had recurred in a more decided form in August 1832."

Dr Craigie does not see any connection between the lesion reported by Mr Craig to have existed "in the middle lobe, on the left side, a little behind the pituitary gland, and to the left of it," "not exceeding a quarter of an inch in extent," and the loss of the use of words. To have discovered this connection would have been to admit a fact in favour of Phrenology.

With all deference to Dr Craigie, there are better grounds for viewing the lesion in the left posterior lobe to be connected with the change of temper, and that in the left middle lobe with the loss of the use of words, than for his supposition; because the functions of these different parts in a state of health are known to be connected with the manifestations of the combative propensity and the faculty of Language. Besides, in the case reported by Mr Hood, the phenomena attending the loss of the use of words were remarkably similar to those which presented themselves in the case of Mr N.; and in Mr Hood's case there was no lesion *in either of the posterior lobes*, while there was disease in the region of the brain, on the left side, corresponding with that in which the small cavity was found in Mr N.'s brain.

Dr Craigie adds some observations on the loss of the faculty of language, in which he says that "it is manifest that the privation was not universal, as it did not extend to the remembrance of places, persons, or objects." The phrenologists agree in this remark; but they humbly think that this affords a strong confirmation of their doctrine that the faculty of language is manifested by a part of the brain different from those parts which manifest "the remembrance of places, persons, or objects."

I must here limit myself to the following observations:—

I. Mr N. was known to have acquired from ten to fourteen

languages; and the examination of his brain afforded an opportunity of observing the size of the convolution, which, according to the phrenologists, constitutes the organ of the faculty of Language. Mr Craig takes no notice of its size. I affirm that it was unusually large, and that there was a distinct transverse furrow in each super-orbital plate, of more than ordinary depth, corresponding to its dimensions.

II. Mr N. retained the knowledge of the signification of words when addressed to him, but could not use words intelligibly himself, so that his faculty of Language was impaired, but not destroyed. In concomitance with this fact, the organ of Language was entire in the right hemisphere, while in the left there was a cavity in the line of the fibres of it. Mr Craig and Dr Craigie avoid all allusion to the phrenological doctrine that there are separate organs for the faculty of Language independent of the other organs, and also all notice of the bearing of the facts of Mr N.'s case on these doctrines.

III. Mr Craig denies all morbid change of temper in Mr N. at the period of his loss of the use of language. I have produced evidence of the change, and it forms an important feature in the case taken in connection with the morbid appearances in the organ of Combativeness. To record the latter, and omit the former, is to mutilate and give a signification to the facts at variance with their real import.

IV. In the phrenological works published by Dr Gall, Dr Spurzheim, and their followers, facts are stated, tending to shew that spectral illusions are connected in some way with large development or diseased action of the organs of Wonder, or of those of Wonder and Imitation. In the present case the skull was thickened over these organs in the left hemisphere, indicating a degree of morbid action in that region which did not present itself in other parts of the skull. No notice is taken of this concomitance in Mr Craig's report.

V. Dr Craigie cites some cases of lesions of the brain accompanying loss of the use of words, but he makes no allusion to Mr Hood's case, which, in regard both to the mental manifestations and morbid appearances, was closely analogous to the present, but which contradicts Dr Craigie's supposition, that the lesion in the posterior lobe was the cause of the loss of the use of words.

In short, if scientific truth be an object worth pursuing, I leave the reader to judge to what extent its cause has been promoted by the manner in which Mr Craig and Dr Craigie have brought this case before the public and the medical profession. It is the fashion with those who oppose Phrenology, and also with those who, like Dr Prichard and Academicus, simply affirm that there is no evidence of its truth, to treat with in-

credulity every fact observed and reported by phrenologists. In this instance we see, that when facts of the most palpable character are presented to non-phrenological or anti-phrenological observers, they do not perceive them, or do not report them. How, then, can Phrenology ever be proved to be true to the satisfaction of such men, while this system shall be pursued? If a phrenologist had not had access to the facts of this case, it would have continued to be cited as a striking evidence against the doctrines. How many similar examples may exist?

G. C.

Edinburgh, 21st Nov. 1836.

P. S. Before the foregoing remarks were printed off, I received an answer to my letter to Mr Craig, dated the 18th of November, which I consider it due to him to present also to the reader.

"MY DEAR SIR, LUDGATE LODGE, 19th November 1836.

"My letter to you of the 5th was never intended for publication; if, however, you do so, you will see the propriety of omitting the real and substituting the fictitious name of Mr N.

"Upon maturely re-considering the case,—upon examining those who had every opportunity of seeing the subject of it,—I see not the slightest grounds for altering my deliberately formed opinion, confirmed as it is by the eminent medical men who visited along with me, as well as others who were in the habit of seeing Mr N. frequently, and giving the decided preference to an opinion formed upon my own daily personal observation, to your report, second hand as it must be, which, however, I shall be glad to see when published. I am, &c.

"JAMES CRAIG."

This letter led me to make additional inquiries to ascertain to what extent the statement of John Smeal might be relied on; and I have received the following letter from a gentleman of great respectability, well known to the public.

"MY DEAR SIR, 21st November 1836.

"Only once after the loss of the command of words did I happen to come in contact with Mr N., when he immediately recognised me, and I believe alluded to Dr J—, but he spoke what appeared to me to be Spanish, or chiefly Spanish, and of course I made my bow as speedily as possible. Only once, too, did I see Mr Smeal senior after that event, and I can assure you that all that I gathered from him, confirms most amply the account given by you of the change of temper from remarkable mildness to marked irritability. Whoever knows the character of Mr Joseph Smeal, for quietness, mildness, &c."

tachment to his old master, well tried probity, and general worth of every sort, cannot hesitate a moment in giving implicit credence to his report, and in being satisfied that it would not be exaggerated, but rather understated, and the examples of bad temper either concealed or apologised for. His son I believe to be equally trustworthy. I am, &c.

“ ——— ———.”

I am authorized to communicate to Mr Craig the name of the writer of this letter.

The public will now form their own judgment on the case.

G. C.

23d November 1836.

ARTICLE XI.

SHORT COMMUNICATIONS.

Statistics of Phrenology.—Since the publication of the work bearing this title, several communications have been made to me, which tend to shew that the actual strength of phrenologists in numbers, is under-estimated in the work. Thus, in London, there is “The Anthropological Society,” including thirty-eight members, and the society of “Phrenological Inquirers,” comprehending forty-five members. Phrenological societies or classes have also been formed in several places additional to those mentioned in the work, as at Paisley, Berwick, and Southampton. And I am further informed of phrenologists in different towns of which no notice was made. I shall feel greatly obliged by any other communications of this kind, and will make public the particulars, when collected, in a supplemental sheet, or some other form. It is obviously for the advantage of Phrenology that the full numerical strength of its adherents should be known; and on this account I do not hesitate in earnestly requesting phrenologists to forward the publicity of circumstances calculated to answer such end. Great caution, however, is requisite that no over-estimate of numbers be made.—While alluding to the “Statistics,” I take advantage of the opportunity for correcting a slight error in allusion to Liverpool. Mr Levison’s lectures were delivered in December 1833, not in January 1836. This gentleman is anxious that the correction should be made, but it would not interest other persons to enter into any explanation as to the cause of the mistaken date.—H. C. W.

Function of Wit.—I have seen three cases of living individuals which strongly tend to corroborate the views of Spurzheim, and it may be that the examples adduced by Mr Scott and myself

in former volumes of the Phrenological Journal, are the manifestations of Wit and Causality combined. We want an exact analysis of the manifestations of Causality taken by itself; almost every example cited by phrenological writers appears to involve other organs in united activity, particularly Time and Eventuality.—H. C. W.

Recent Attacks on Phrenology.—Two periodicals, which are widely known and circulated, have just published attacks on Phrenology. "The Quarterly advocate of despotic principles is fast receding from the advancing intelligence of the age," writes Mr Babbage; and its opposition to Phrenology will be held by many to be commendatory, or a sort of implied admission that the science is calculated to improve mankind. There seems no reason to doubt that the Review is still read by some antique gentlemen, but as these persons never would become phrenologists, the attack will be quite harmless, both to the science and to the Review. It is somewhat otherwise with Tait's Magazine. It may possibly encourage some few persons in their prejudices against Phrenology; but, looking to the class in which Tait chiefly circulates, it needs no great foresight to predict that any injurious consequences from its antiphrenological effusions in the October number will fall upon the pecuniary matters of the Magazine itself, and not upon the phrenological works which it is pleased to condemn. Here I am strongly tempted to ask the editors of the Phrenological Journal to allow me to point out an example of the egregious blunders committed by critics destitute of any proper key to human character. The writer of the notice in Tait discovers proofs of the "bump" of credulity being very large in the author of the "Statistics of Phrenology." Never was there a more unlucky guess. So far is the author of that work from being liberally endowed with credulity, that, *while yet in his teens*, he had acquired the nicknames of "Sceptic" and "Caviller," in his own family and acquaintance—names not applied with reference to religious opinions, but on account of an excessive tendency to doubt and question every proposition set before him, until furnished with some good grounds or proof whereon to let it rest. The mental peculiarity, which procured for him such little-coveted appellations, still inheres; and assuredly no phrenologist could criticise the "Statistics of Phrenology," or any other work by the same writer, without discovering that very prominent mental feature, which the unphrenological critic in Tait has been altogether unable to detect. Such is criticism by persons destitute of any key to human character! As to Tait's notice in other respects, it is written with smartness and some point; but a phrenologist will certainly not discover a large "bump" of Conscientiousness in the head of the writer. A little bump of

this kind would have prevented that notice being made the vehicle of circulating Mr Scott's glaring misstatement about Mr Combe's remarks on the habits of society being at variance with the precepts of Christianity; and it might also have prevented some other one-sided comments. The author of the "Statistics," however, will easily forgive the irony applied to himself, and will assure the writer of the notice that the strength of phrenologists is understated in the book in question.—H. C. W.

Faculty of Imitation.—Sir,—Conceiving that the following case, which I have found to-day in looking over Dr Plot's "Natural History of Staffordshire" (1686), p. 284, might interest you in a phrenological point of view, as exhibiting an extreme instance of morbid action in the organ of Imitation, I have taken the liberty of sending you a copy of the story as given in the author's own words. The case appears to have been originally published in the Philosophical Transactions, No. 129.

"But when this imitating quality is so very strong that it becomes involuntary, as it is in Donald Monro of Scrachbogie, in Scotland, who pulls off his hat, and puts it on, wipes his nose, wrings his hands, stretches forth his arms, and imitates all other actions he sees other men doe, though much against his will, with so much exactness, and such a natural and unaffected air, that no man can suspect he does it with designe, and yet with so strong an impulse (as the reverend and learned Dr Gordon informs us) that if his hands be held, he cannot forbear pressing to get himself free to doe the same thing. Nay, so contrary to his mind does he ape these motions, that to hide his infirmity, he casts down his eyes when he walks the streets, and turns them away when in company, wherein too 'tis hard to make him stay, once he finds himself observed."—I am, Sir, your most obedient servant,

JAMES Y. SIMPSON, M. D.

Edinburgh, 2 Teviot Row, Aug. 22. 1836.

Letter to the Editor.—Mr Editor,—In a town that must be nameless, I lately heard a gentleman say that the things you publish as facts are not facts. As this gentleman is supposed to be a philosopher, I did not think it becoming in me to contradict him; so I very respectfully inquired which were not facts. The gentleman opened his mouth, and shook his chin, and stammered, and twisted about on his chair, but not a syllable could he utter; and he looked so very uneasy, that all my respect was changed into pity, and I began to talk about the rainy weather; and then, all at once, he sat quite still, and talked very nicely without stammering at all. Now, Mr Editor, it is my private opinion (which I will tell you) that the gentleman would not have got out any answer to my question if I had waited an hour for it. Don't you think so too? I am, Mr Editor, with great regard, yours,

MARIA.

The Athenæum, October 22. 1886.—The literary criticisms in this periodical are usually written with judgment, and by well-informed persons; but a lamentable want of knowledge of human nature is betrayed by several of its contributors, whenever their lucubrations relate to man and mind. In such cases, their remarks, if not the merest commonplaces, are either idle and unprofitable guesses or downright blunders, partially veiled in a flimsy tissue of verbiage. The following passage affords an example of sounding words, destitute of any clear meaning or practical instruction:—"Wonderful are the powers of the microscope, opening to our eyes a new world of being, and bringing us acquainted with forms and modes of existence, of which heretofore we had no conception or apprehension. But is there no moral microscope, by means of which we may look more deeply into the human heart, and see more closely the current of human thoughts, and the working of human feelings? Yes, sympathy, by means of which humanity is opened to us, and we are brought to the knowledge of mental emotions and characteristics quite as interesting, and as much, generally, overlooked as those forms of physical existence which are revealed to us by the aid of the microscope; and thus we learn that the moral world is as full of active thoughts and feelings as the material world is of curious and beautiful forms of existence." With some truth might we term Phrenology a moral microscope, by means of which "humanity is opened to us," and we are brought to a knowledge of mental characteristics "generally overlooked." But who, while awake, ever thought of calling "sympathy" a moral microscope, and attributing any elucidatory power to a mere word of such vague generality and varying sense, that out of any dozen persons asked about it, probably not two would represent its meaning to themselves by the same kind of ideas! The passage is given under the "original papers," and with the title of "Extracts from the Note-Book of a Solitary Thinker." The author need have no fear that any one will claim its originality; and it may be suggested that such a "moral microscope" could be used only in solitude, being a microscope which shews us nothing but the peculiarities of self, and can teach us nothing whatever of that which is only external to self. Whether the original thinker is the same self-complacent gentleman who sneered at "cerebral geography" a few weeks before, I cannot pretend to say. Perhaps not, but I will take the liberty of recommending him to peruse a dreamy lucubration on "Characteristics," which appeared in the *Edinburgh Review* five or six years ago, and then to peruse any phrenological exposition of mental characteristics of equal length; and, after reading both, he may decide whether he can gain most knowledge from direct observa-

tions on society and individuals, or from empty speculations based on solitary thought.

H. C. W.

Letter to the Editor.—Mr Editor,—You have given a review of Mr William Scott's "Harmony of Phrenology with Christianity," which may be called suitable to the real value, or want of value, of the book; but which is not suitable to the injury it is likely to do weak minds. You ought to have pointed out some instances of its "perversions and misrepresentations." I beg to call the attention of your readers to one example of a most pitiful attempt to excite religious feeling against Mr Combe. On page 46 Mr Scott writes, "I may here take notice of a passage which occurs almost at the outset of Mr Combe's introductory chapter, 'The sceptic has advanced arguments against religion, and *crafty deceivers* have in all ages founded systems of superstition on the disorder and inconsistency which are too readily admitted to be inseparable attributes of human existence on earth.'" Mr Scott pretends to think that Christ and his disciples were intended to be included amongst the "crafty deceivers;" and says, that Mr Combe "is certainly bound to explain what was his meaning." With all deference, I think Mr Scott is bound to ask pardon of Mr Combe and all his own readers, for thus endeavouring to injure the one and deceive the others. By the use of capital and italic letters he has drawn the reader's attention from the words "sceptic" and "in all ages," which clearly shew that Mr Combe had only human fictions and superstitions in view, of which so many hundred "systems" are now in the world, and have been through "all ages" of which we possess any historical notices. The idea of calling Christ a "crafty deceiver" is so completely at variance with his whole recorded actions, that no one could think of seriously doing so; even if refusing to allow his divine origin, or divine commission. Mr Scott says, that Mr Combe has here "not sufficiently guarded himself against misconstruction." A blank page would be the only guard against Mr Scott's misconstructions. I am, &c., A PHRENOLOGIST.

Aristotle's Opinions concerning the Functions of Different Parts of the Brain. To GEORGE COMBE, Esq.—Sir,—Although I have not studied the subject of Phrenology, and probably, on that account, cannot be properly called a phrenologist, in the ordinary acceptation of the term; yet, having lately met with a singular passage apparently bearing on the point, I thought if you had not already fallen in with it, you might be pleased to see it. It occurs in a small volume in my possession, printed about the beginning of the 16th century, containing, besides certain pieces of Albertus Magnus, &c., one entitled "Pro-

blemata Aristotelis." Among these problems the following "De Capite" are proposed and solved: "Quæritur, Quare caput non est directe rotundum sed oblongum? Respondetur, Ut in ipso tres cellulae aptius possunt (possint?) distingui; scilicet fantasia in fronte, logistica sive rationalis in media, et memoria in posteriori cellula.—Quæritur, Quare homo imaginando erigit caput sursum sive versus coelum? Respondetur, Quia imaginatio est in anteriori parte capitis sive cerebri: ideo erigitur sursum ut cellulae imaginationis aperiuntur (aperiantur?), et ut spiritus animalis concurrente facere possit imaginationem.—Quæritur, Quare homo cogitans et recogitans de praeteritis caput suum inclinat ad terram? Respondetur, Quia cellula posterior est memorativa; ergo illa erigitur versus coelum cum caput inclinatur ad terram, et sic aperitur illa cellula ut spiritus animales perficientes memoriam intrarent." I am, Sir, your obedient servant,—W. COKE. [The work of Albertus Magnus is noticed by Dr Gall, Sur les Fonctions du Cerveau, ii. 354. Of the speculations of Aristotle and others on the foregoing topics, we ourselves gave some account in vol. ii. of this Journal, p. 378.—ED.]

Alphabets for the Blind.—It would be an interesting and useful exercise for some phrenologist to compare the proposed alphabets for the Blind (transmitted to the Society for the Encouragement of the Useful Arts in Scotland, and copies of which have been lately circulated by that Society to the different institutions for the Blind for farther information on the subject), with the phrenological development of the several proposers. Form and Locality would seem to have given the basis of most of the alphabets; but there are some striking differences. In the alphabet of Mr Simpson, the forms of his letters are very little varied. They are a set of objects, less distinguished by differences of configuration, than by the direction of their angles; their solidity; or the appendage of other objects, as dots in a triangle or square. Does this alphabet proceed from Individuality and some other organ (Weight or Locality) which gives rise to ideas of direction? The alphabet of Dr Greville may have sprung chiefly from Individuality and Imitation, perhaps with Constructiveness. That of Mr Henderson seems to call for the activity of Number and Individuality, in the reader, more than either Form or Locality. Why are the alphabets of Mr Lucas and the Rev. E. Craig almost destitute of *angular* figures, so prominent in most of the others? Some faculty cognizant of direction or perpendicularity would appear to have been at work here. It is remarkable that so little attempt at classification should have been made. In Mr Simpson's alphabet, the vowels are all four-sided figures, and

the only four-sided figures he has employed. In some of the others, the vowels are partially distinguished; otherwise, the order of sequence seems almost the only clew to their application of the figures to our regular letters. H. C. W.

ARTICLE XII.

SHORT NOTICES OF BOOKS.

An Examination of Mr Scott's Attack upon Mr Combe's "Constitution of Man." By Hewett C. Watson.—Longman & Co., London; MacLachlan & Stewart, Edinburgh. 1836. 18mo, pp. 38.

The motives which have induced Mr Watson to come forward on the present occasion, are thus stated by himself:—"I perfectly agree with Mr Scott's friends that any published work ought to be answered, if containing serious moral errors. And if the real motive of Mr Scott's undertaking be a desire of refuting the errors contained in the work of Mr Combe, with the hope of counteracting an injury thus threatened to others, I also may plead the call of duty, urging me to examine the errors contained in Mr Scott's work, and to expose its utter unfitness to give evidence against Mr Combe's views. The notice in the forty-ninth number of the *Phrenological Journal* must be construed as an intimation that Mr Combe entertains no intention of doing this himself; nor should I have felt any desire to obtrude myself into a position declined by him, had it not been rumoured that a cheap edition of Mr Scott's work is preparing for circulation among the people;—to return the words of Mr Scott upon himself, 'among a class of readers not the best fitted to detect its fallacies.' Much better fitted are they, however, than Mr Scott appears to believe, though a little assistance may do them no harm, as a preventive antidote." "Mr Scott's treatise," he continues, "is divided into twelve chapters, and occupies 332 pages, besides a long preface. To go regularly through the whole, and expose all the misconceptions and errors contained in it, would be an unprofitable waste of time, type, paper, and every thing else. I shall therefore take the preface and first chapter for examination; and shall presume the whole work morally overturned, if I am successful in shewing from these that Mr Scott has greatly misconceived the statements and opinions of Mr Combe (such misconception being proved by the strange manner in which Mr Combe's essay is misquoted and misrepresented), and has made numerous errors and inconsistencies in his own arguments." We have only room to say that Mr Watson has admirably performed the task which he has

imposed upon himself. The perversions and inconsistencies exposed by him are almost inconceivable. One specimen will suffice. "On the next page," says he, "there is a far worse misrepresentation, induced by the suppression of part of a passage quoted, the portion given by Mr Scott conveying quite a different meaning when seen by itself. He has it thus:—'He labours to shew that his system is in harmony with the precepts of Christianity; and yet he most inconsistently declares, that these precepts are 'scarcely more suited to human nature and circumstances in this world, than the command to fly would be to the nature of the horse!'" Any reader may judge of the fairness of this representation, by seeing the whole passage. Mr Combe remarks that the people hear the precepts of Christianity in churches, on Sunday, but that the great body of the community—lawyers, merchants, manufacturers, farmers, mechanics, and others—spend their whole energies, in their several callings, during the rest of the week, devoting little or no leisure time to religion; and that Sunday again 'dawns upon them in a state of mind widely at variance with the Christian condition.' And he adds, afterwards:—"It is in vain to say to individuals that they err in acting thus: individuals are carried along in the great stream of social institutions and pursuits. The operative labourer is compelled to follow his routine of toil under pain of absolute starvation. The master-manufacturer, the merchant, the farmer, and the lawyer, are pursued by competitors so active, that if they relax in selfish ardour, they will be speedily plunged into ruin. If God has so constituted the human mind and body, and so arranged external nature, that all this is unavoidably necessary for man, THEN the Christian precepts are scarcely more suited to human nature and circumstances in this world, than the command to fly would be to the nature of the horse." The words, as quoted by Mr Scott, are the words of Mr Combe, but they are not the *whole* words, and herein lies all the difference. Any candid reader must see, that Mr Combe's intention was to shew that the habits of society are at fault, not that Christianity is to be rejected as unsuitable to man. By omitting the previous words, and especially the doubtful or conditional IF and THEN, Mr Scott has given an entirely opposite signification to the passage. This might be held an ingenious trick in pleading a cause; but let others decide how far it is justifiable."

Mr Watson sums up his little work in the following terms:—

"I have now gone over the Preface of Mr Scott's book, almost paragraph by paragraph, and have shewn how greatly it distorts and exaggerates Mr Combe's statements; and that even in the paragraphs which give truth, the *whole* truth is not shewn. I have also gone, though less closely, over the First

Chapter, and have shewn that similar defects characterise that part of the book. I have further shewn that the author so far has utterly failed in his attempts to refute Mr Combe's views, whether those views be right or wrong in themselves; and that he has equally failed of establishing his own. I have, moreover, exhibited glaring contradictions and inconsistencies between one part of the work and another, and even between passages almost immediately following one the other. And I have also shewn that where his reasoning may appear conclusive, it is really worthless from being founded on very doubtful or inaccurate premises. Having established such defects in the very outset of the work, I may consider myself to have proved the book to be utterly unfit to give evidence against Mr Combe; and that it cannot be necessary to go into further examination of its contents. Suffice it to say, that examples of such defects can be doubled, trebled, or quadrupled, if it become necessary. But I rest here; and will conclude by expressing my astonishment—though little apt to be astonished at aught—that any person of Mr Scott's ability should have put forth such a book; and should have been able to coax himself into a notion, that he could thereby overthrow 'The Constitution of Man,' or cast down its author from his throne of intellectual and moral eminence. If a writer of much ability—and such we cannot deny Mr Scott to be—is found able to do so little against Mr Combe's Essay, people will be disposed to think that Mr Scott has a *wee bit* exaggerated its 'multitude of errors.'

A System of Phrenology. By George Combe. Fourth Edition. Maclachlan & Stewart, and J. Anderson jun., Edinburgh; Longman & Co. London. 2 vols. 8vo. pp. 933.

This edition of Mr Combe's "System" contains numerous additions, interspersed throughout its pages; new cuts have been used; and, in treating of topics of interest, he has added references to other phrenological works in which they are discussed or illustrated, so as to render this edition an index, as far as possible, to the general literature of the science. The illustrative engravings and cuts are not only more numerous than in the last edition, but of greatly superior quality; the coloured plate illustrating the four temperaments will be particularly useful. A section of ten pages is inserted, "On the importance of including development of brain as an element in statistical inquiries into the manifestations of the animal, moral, and intellectual faculties of man." Among the answers to arguments against Phrenology, the author has given some pungent remarks on the objections of Sir Charles Bell. The volume is excellently printed, and embodies the latest improvements in Phrenology.

Elements of Phrenology. By George Combe. Fourth Edition. Macclachlan & Stewart, Edinburgh; Longman & Co. London. 12mo. pp. 194.

Considerable additions have been made to this edition, and the value of the work has been augmented by the insertion of numerous cuts.

Outlines of Phrenology. By George Combe. Sixth edition. 1836. 8vo.

These "Outlines" are intended for readers who, though desirous to know something of Phrenology, are unwilling or unable to bestow much time or money in gratifying their curiosity. The work is closely printed, and contains a good deal of matter in a small space.

The Philosophy of Education, with its Practical Application to a System and Plan of Popular Education as a National Object. By James Simpson, Advocate. Second Edition. A. & C. Black, Edinburgh; Longman & Co. &c. London. 1836. 12mo. pp. 288.

By omitting a portion of the Appendix, and using a closer type, Mr Simpson has been enabled to reduce the price of his work to little more than one-half of that of the first edition. He has likewise given the volume a more appropriate title. In the preface he says, "The subject of education being progressive, and increased attention having been given to it since the date of the first edition of this work, it is none of the least of the advantages of a new edition, that it can illustrate principles from the latest cases of an extending experience. Of this the author has not failed to avail himself; and while he has added to the number of his facts, he has modified and corrected some of his statements." We think that Mr Simpson has much improved his work. One suggestion, however, we would offer—that, in future editions, he should not class among the moral sentiments the faculties of Hope, Firmness, Wonder, Ideality, Wit, and Imitation. A moral faculty is one from which a sense of right and wrong, of duty and criminality, originates; and it seems to us more than questionable whether there be any such faculties except Conscientiousness, Veneration, and Benevolence.

Observations upon the Instinct of Animals. By Sir John Sebright, Bart. London: Gogging and Egley, 1836. 8vo. Pp. 16.

Sir John Sebright appears to be altogether unacquainted with Phrenology, and labours under a great consequent disadvantage in treating of Instinct. With much acuteness of observation, he fails in his attempt at explaining the peculiar modifications of instinct, under altered circumstances. The actions of animals are carefully noted, but the causes of those actions are unknown.

The author, being unaware that Instinct is really a general term for expressing the cerebral functions of animals, and, *mutatis mutandis*, in some measure synonymous with the mental faculties of mankind, does not sufficiently distinguish between three very different things—the innate powers (feelings, propensities, capacities, &c.) of animals, their varying degrees of strength, and their special directions. The innate powers of each race of animals are always the same in kind; but they vary much in degree in the different individuals of the same race, and their direction varies according to external circumstances. This may be illustrated familiarly, by reference to an endowment which is more obviously physical. The muscles of every dog are essentially of the same nature, and have the same relative positions, but they differ widely in their size and strength in individuals; and they are directed to different uses by man. The feeling of Cautiousness exists, both in the domesticated and in the wild duck. Each has it, but in very different degrees of strength. Each also possesses the propensities to take food, to propagate, and to form attachments; but different external circumstances in the domestic duck modify the direction of its propensities. Hence it readily takes as food what the wild duck rejects, and becomes polygamous instead of monogamous. Nevertheless, the innate feelings or propensities are still there, unaltered in kind, though varied in strength and changed in direction. Physiologists have ascertained that these feelings or propensities depend entirely upon the organization of the brain; and since that organization becomes changed accordingly as the feelings or propensities are much or little called into activity, the state of domestication causes physical differences in the brains of ducks and other animals. The offspring usually represents its parent; and thus, in the common order of nature, these physical differences are transmitted by hereditary descent. The second generation consequently starts with an organic frame, including the brain, slightly different from that which is observed in the wild individuals. Continued domesticity causes still further changes; and the third generation is produced yet further removed from the wild type. When this course is continued through a long series of descents, the departure from the wild type is so great, that it becomes a very difficult matter to say how the domestic breeds originated. The wild stocks from which our dogs and cats have descended are undetermined by naturalists; and we may almost say the same thing of the horse and sheep. As the degree, and (to some extent) the direction of the instincts, or innate powers, are determined by the condition of the brain, the changed condition, induced in a long series of descents, is accompanied by a corresponding change in the comparative strength, and the direction of these instincts. Whether they be called innate powers,

feelings, propensities, or capacities, is a matter of indifference. Sir John Sebright is doubtless well acquainted with the influence of hereditary descent over the *bodies* of animals; and in saying that their instincts depend upon a certain part of their bodies, namely, the brain, he will be at no loss to understand many points which must at present appear to him altogether inexplicable. We will now apply this explanation to the author's instance of the duck. In the wild individuals their natural timidity is perpetually called into action; and the part of the brain on which this feeling depends is kept up to the condition best adapted for manifesting timidity. The offspring of the wild animal is consequently born, or hatched, a timid animal, and will be liable to panic; but if a few descents be reared in captivity, and terrified as little as possible, the later descendants will gradually acquire the ease and confidence of the domestic duck. They will become domestic ducks. It is, in short, the changed condition of brain, in domestic animals, which gives rise to the instinctive differences between them and the first captives of the species, however young the latter may be taken, be it even in the egg. We have not agreed with Sir John Sebright in adopting Paley's definition of Instinct, namely, "a propensity previous to experience, and independent of instruction." It is merely a verbal paraphrase, and involves an incorrect idea. A propensity, if innate, must be essentially the same power both before and after experience or instruction; and innate it must be, otherwise it could not precede experience. It would be ridiculous to say that instinct impelled a bird to build its nest the first time, but that some other cause impelled it to build the second time. Sir John is too good an observer not to see that Paley's definition led him into difficulties. He is perfectly correct in suggesting that national character in part depends upon changes hereditarily transmitted; but it is not the "acquired habits" that "become hereditary." It is the changed brain that becomes hereditary; and the habits accord with the state of the brain. Human beings are subjects of the same physiological laws as the lower animals.

Thoughts on Phrenology; being a Brief Dissertation on the Principles and Progress, and Tendency of that Science. By J. C. James. London: Effingham Wilson. 1836. 18mo, Pp. 58.

This "literary first-born" of its author is properly described in the name. It is less an exposition of Phrenology *per se* than of the manner in which the author's mind is affected by the subject. The style of expression is light and pleasing, and often graceful. There is no pretension to profound views or to novelty of ideas; but the book reads agreeably, and the remarks are usually correct and judicious. Many young persons might

reap advantage and amusement from perusal of the "Thoughts." The chief fault is a proneness to overleap difficulties, and to represent every thing as smooth and perfect; a kind of fault which ought to be sedulously avoided in every science, and particularly in Phrenology. For example, it is going rather too far to say, that "the separate state" of each particular phrenological organ may be demonstrated by dissection; that the surface of the brain is exactly represented on the outer table of the skull; that there is an "invariable coincidence of power of faculty and prominence of bone;" and that phrenologists can thereby predict character with "infallible precision." Neither should we seek to prevent the ill consequences apprehended from an organ being too large, by "restraining every exercise of the organ;" nor attempt to improve a small organ, by the "incessant exercise" of it. Either course would tend to injure health, and the means would ultimately be found to prevent the desired end. Neither, again, can our laws be so framed as to make an "effectual application of punishment, by adapting it, in every case, to individual organisation." Much might be done in adapting remedial measures to individual peculiarities; but while society inflicts punishments, the inflictions must be made by general rules. Excepting these and a few other instances, where the author substitutes the ideal for the real, we are pleased with his little work.

What is Phrenology? Its Evidence and Principles familiarly considered.

By Edwin Saunders. 2d edition. London: H. Renshaw. 1835. 18mo, Pp. 66.

The question "What is Phrenology?" one might have supposed to be answered by any elementary treatise; but a second edition of Mr Saunders's work would imply it to afford a good saleable title. The book itself is passable enough. There are some worse, and several better expositions of the science. Errors it certainly has, though not very numerous; and they are in a part of the work where errors ought not to exist, namely, in describing the functions of the organs individually. These errors are not very weighty, but should be amended if a third edition happen to be called for. They usually arise from referring to one single organ, the manifestations of several combined. Thus, cowardice and timidity are first said to be the "result" of a small development of Combativeness. Three pages further, we are more correctly told that large Cautiousness produces timidity. We do not see how a quality of mind, produced by one organ, can be the result of another. Secretiveness, moderately developed, is said to give prudence, and, when large, illiberality in communicating information. It has little to do either with prudence or illiberality, unless when it is called into exercise as a means of accomplishing these ends. Severity is said to be the characteristic of Firmness. The author would have been nearer truth by substituting Destructiveness.

Cours de Phrénologie. Par F. J. V. Broussais, Membre de l'Institut, Professeur à la Faculté de Médecine de Paris, &c. &c. Paris and London: J. B. Baillière, 1836. 8vo. pp. 850.

Lectures on Phrenology, delivered in 1836, in the University of Paris, by M. Broussais, Professor of General Pathology in the Faculty of Medicine. Reported in the Lancet from 25th June to 17th September 1836.

Reports of these lectures were taken down in short-hand, and, after being revised by Dr Broussais, have been published in a volume. Apparently it was a translation of the same reports which appeared during last summer in the "Lancet." The attendance at the lectures was extremely numerous, and the publication of them cannot fail to be gratifying to the phrenologists both of France and of Britain. We have perused the reports with great pleasure, and shall take an early opportunity of making their contents known to our readers. Dr Broussais throws out many original and important suggestions. He says, "I can assure you, gentlemen, that I have not taken up the defence of Phrenology without long reflection,—without being supported by numerous observations in evidence of its truth. I first collected a large body of facts, and became a partisan of the doctrine when the evidence I possessed became irresistible."

The Quarterly Review, No. 113. September 1836. Article VIII. On Phrenology.

Phrenology Vindicated: Being a Reply to the Quarterly Review, &c. With Introductory Observations on Phrenology in general. By Joshua Toulmin Smith of Lincoln's Inn, Esquire, &c. London: Longman and Co. 8vo. 1836.

The Quarterly has performed a great feat in the number for September. It has reviewed the fifth edition of Mr Combe's "Outlines of Phrenology," consisting of 33 pages of 8vo print; and because it has not found in these 33 pages a complete exposition of the whole principles, doctrines, and proofs of the science, it has, with its usual oracular dogmatism and self-complacency, arrived at the conclusion that it has overturned the entire fabric founded by Dr Gall, and improved by his followers. We intended in this number to enter into the merits of its arguments; but the great length to which other articles of a more important character have extended prevents us from doing so. We should have chiefly placed quotations from Mr Combe's "Elements" and "System" in juxtaposition with the objections stated by the reviewer; and shewn that he needed only to have extended his reading to have escaped from the difficulties with which—apparently much to his own satisfaction—he felt himself beset. Mr Smith, however, has saved us from the necessity of doing so. He dis-

cusses fully the arguments of the reviewer, and answers them—in some instances, indeed, at greater length, and with more warmth, than the objections seem to us to have called for. We recommend Mr Smith's pamphlet to such of our readers as have felt any force in the objections of the Reviewer. In our present number we have already introduced the author to our readers in a review of his work on the Philosophy of the Ancients. He is evidently an elegant scholar and amiable philanthropist. He has shewn a very considerable acquaintance with Phrenology, and a just estimate of its importance. We therefore hail him with much pleasure as a valuable auxiliary in its cause.

Selections from the Phrenological Journal: Comprising forty Articles in the first five volumes. Chiefly by George Combe, James Simpson, and Dr Andrew Combe. Edited by Robert Cox. MacLachlan & Stewart, and John Anderson jun., Edinburgh; Simpkin, Marshall & Co. London. 12mo, pp. 360. 1836.

The contents of this volume are of a miscellaneous nature. Each paper has been carefully revised, and in most instances the name of the author is now published. "In making the selection, the editor has endeavoured so to diversify the subjects treated of, as to shew, in a forcible manner, the extensive applications of which Phrenology is susceptible to human affairs." Among the articles reprinted are papers by Mr Combe on the Scolding of Juries, the Application of Phrenology to Criticism in the fine Arts, Glasgow Bridewell, the Study of Logic and Moral Philosophy, the Advantages of Education, &c.; by Mr Simpson, on Ventriloquism, Spectral Illusions, Juvenile Acting, Eloquence, Dancing, Armorial Mottos, Mr Wood's School, and the Characters of Voltaire and Cromwell; and by Dr Combe, on the Temperaments, the Causes and Cure of Stammering, the Seat and Nature of Hypochondriasis, and the question, Does Phrenology afford a satisfactory explanation of the Moral and Intellectual Faculties of Man?

MISCELLANEOUS NOTICES.

EDINBURGH.—Mr Combe is this winter lecturing on Phrenology to a class of Medical Students, in Dr Mackintosh's Medical School, Argyle Square.

The following office-bearers of the Edinburgh Ethical Society for the Study and Practical Application of Phrenology, were elected on 18th November:—W. B. Hodgson, and John Mackenzie, *President*; Andrew Brash, *Secretary*; Thomas Moffatt, *Treasurer*; George Cruikshank, *Librarian*; Alexander Ireland, William Brown, William Nichol, Dr Abram Cox, and Sidney Smith, *Councillors*. The papers read during the last two Sessions are the following:—Nov. 13. 1835. Mr Brash read *Observations on the Classification of the Mental Faculties*, and Mr R. Cox read *Objections to Dr Spurz-*

heim's Classification and Nomenclature.—Nov. 20. Mr R. Cox read Observations on Concentrativeness, and also two Essays on that Faculty, one anonymous, and the other by Mr William Hancock jun., Somersetshire.—Nov. 27. Mr Smith read an Analysis of the Character of a Gentleman, as inferred by him from a cast of his head, now exhibited to the Society; together with a sketch of the gentleman's character, written by one of his intimate friends. The two were found to correspond in a remarkable manner.—Dec. 4. Mr Deseret read an Essay on the Observing and Reflecting Faculties.—Dec. 11. The Society spent this evening in discussing a case of Derangement of Acquisitiveness and other faculties, recorded in the 45th Number of the Phrenological Journal.—Dec. 18. The Secretary read Case of a Lunatic in the Montrose Lunatic Asylum, by Mr W. A. F. Browne. Mr R. Cox read an Essay on the Distinction between Power, Action, and Activity of Mind.—Jan. 8. 1836. The Secretary read Answers by Mr W. A. F. Browne to objections urged by some of the members to his conclusions in the case read at last meeting. Mr Smith stated his views regarding the Faculty of Alimentiveness, which led to considerable discussion.—Jan. 15. The Secretary read a paper by Mr Hewett C. Watson of Ditton Marsh, Middlesex, on the use of the Double Brain. Mr Smith stated some ideas that had occurred to him regarding the elementary nature of Destructiveness; which, he suggested, might possibly be the desire of change. The Secretary mentioned that he had applied to the trustees of the late W. R. Henderson, Esq. for a gift to the Society of a number of casts belonging to them; which had accordingly been presented, under certain conditions. The thanks of the Society were unanimously voted to the Trustees for their valuable donation.—Jan. 22. Mr R. Cox read Cases of Change of Character in consequence of Injuries of the Head.—Jan. 29. Mr Brash read an Essay maintaining the inconsistency of Immaterialism with Phrenology.—Feb. 5 and 12. The Secretary read Cases of Fanaticism, by Mr W. A. F. Browne.—Feb. 19. The Secretary read Case of a Lunatic in Montrose, whose dispositions had been inferred by the Dunfermline Phrenological Society from a cast sent them by Mr W. A. F. Browne. Mr Smith made some Remarks on the Cerebral Development of Haggart.—Feb. 26. Mr Hunter read Observations on the Views expressed in Mr Combe's Constitution of Man, ch. v. sect. 3, respecting the Effects of Machinery on the Condition of the People.—March 4. Mr R. Cox read an Essay on a Law of Action of Benevolence.—March 11. Mr Hunter read an extract from Dr Caldwell's "Phrenology Vindicated," relative to the Brains of the Lower Animals, which was discussed by the members present.—March 25. Mr Hunter, at the Society's request, read again his Observations on Mr Combe's Constitution of Man.—May 13. Mr R. Cox read a Correspondence between him and Mr John Grattan of Belfast, respecting the skulls and dispositions of Charles and Agnes Clarke, executed several years ago at Downpatrick, for murder. The inferences from the casts were found to be correct.—May 20. Mr Smith made some Observations on the Intellectual Faculties and their Classification, which led to considerable discussion.—June 3. Mr Brown read an Essay on the means of stating Cerebral Development, and exhibited a new Craniometer which he had invented, whereby certain measurements may be more accurately made than with Callipers.—June 10. Mr Smith read an Essay on the Function of the Organ of Conscientiousness.—June 17. Mr Brash read a paper on Individuality.—June 24. Mr R. Cox read Observations on the same faculty.—July 1. Mr R. Cox read a View of the Present State of Knowledge respecting the organ of Alimentiveness.—July 8. Mr Hunter read an Essay on Individuality.—July 15. Mr Hodgson read an Essay on Academical Education, in which he argued for the establishment of a special Chair of Phrenology in the Universities.—July 22. The Secretary read Observations by Dr Caldwell on the Capacity of the Negroes for Civilization as compared with the white races, which were discussed by the meeting.—July 29. Mr Brash read an Essay on Eventuality.

ASKEDEN.—In September last Mr Combe received an invitation from

200 of the inhabitants of Aberdeen to deliver a course of lectures on Phrenology in that city in October. The lectures were accordingly given by Mr C., and the audience increased to 300. They were delivered in the Theatre-Royal; the ticket for the boxes or pit being 10s. 6d., and for the gallery 5s. Two-thirds of the audience belonged to the higher class. "From all that we can learn," says the *Aberdeen Herald*, "both publicly and privately, the lectures have excited a general feeling highly favourable not only to the able lecturer, but also to the science of which he is the great apostle." "No lecturer ever visited Aberdeen who created so much interest, whose audiences were more numerous or attentive, or who left behind him a greater number of admirers." Mr Combe delivered an extra lecture on education, the proceeds of which were devoted to the purchase of casts and books for a Phrenological Society about to be formed in Aberdeen.

ELGIN.—We learn from the *Elgin Courant* of 4th November, that Mr Keir, public lecturer on science, had just finished a course of Phrenology, delivered in the Assembly Rooms of that town.

GLASGOW PHRENOLOGICAL SOCIETY, Session 1835-6.—Oct. 15. Dr Maxwell read an essay "on variety in cerebral development, its causes, its effects upon the cranium, and its connexion with what are called the convolutions of the brain." Oct. 28. Dr Weir brought under the notice of the Society two cases in which the natural talents and dispositions had been inferred from cerebral development.—Nov. 11. Mr M'William read a paper on the difficulties of Practical Phrenology.—Nov. 25. Mr Cassils read a paper in which he accounted phrenologically for the cause of the diversity of opinion which prevails on political matters.—Dec. 9. Dr Maxwell read a paper in which he suggested a plan for taking developments rapidly and correctly.—Dec. 23. Mr Liddell having constructed the machine suggested by Dr Maxwell in his essay, the Society spent the evening in making experiments therewith; the result of which shewed that its accuracy could not be depended upon.—Jan. 13. Mr Cunliff read a paper in which he endeavoured to trace the cause of the slow progress which morality has hitherto made, and continues to make, to the ignorance of the laws which regulate the activity of the moral faculties.—Jan. 27. Mr Rettie introduced to the Society a boy of marked character. The members having noted his developments, gave their opinions as to his probable manifestations. Their inferences were declared to be substantially correct by Mr Rettie, who is well acquainted with his character.—Feb. 10. The Society spent the evening in conversation on subjects connected with Phrenology and its progress.—Feb. 24. Mr Cunliff read an essay on the Function of the organ of Hope.—March 9. Dr Hunter read an essay entitled "Anatomical Arguments for Phrenology."—March 23. Dr Weir read an essay on "The phrenological nomenclature, particularly on a new term for Destructiveness."—April 27. Dr Maxwell read a paper "On the changes of structure that shall take place from the full adoption of Phrenological principles, and their effects upon diseases of the mind."—May 11. Mr Goyder read a paper on the abuses of Acquisitiveness.—May 25. Mr Dorsey read an essay on the application of Phrenology to Education.—The Society has commenced its sittings for the present winter, with every prospect of an animated session.

FORFAR.—We have been gratified by perusing the "First Annual Report of the Council of the Forfar Phrenological Society," with a printed copy of which we have been favoured. The members seem to have pursued their studies with great activity. We extract a portion of the Report. "In reviewing, agreeably to the constitution of the Society, the proceedings of the Session just ended, it may be proper to mention, that the Society was instituted on 20th November 1835,—that it reckoned at its commencement sixteen members,—and that the number has gradually augmented to forty-seven. The contributions were fixed at very moderate rates, so as to exclude no one from the benefits of the Institution; but notwithstanding of this, and chiefly

in consequence of what in the circumstances may be properly termed a numerous enrolment of members, considerable progress has been made in the formation of a Library and of a Museum of casts and crania; and these important objects will of course continue to demand a large share of the Society's attention. In the furtherance of them, the Society has been much indebted to Robert Cox, Esq. of Edinburgh, and W. A. F. Browne, Esq. of Montrose, for their advice and assistance, and to Lord Douglas Gordon Hallyburton, for a donation of very interesting Busts. Amongst other benefactors, the thanks of the Society are especially due to the Magistrates and Town Council of Forfar, for the use of the Council Chamber as a place of meeting, which was granted with a liberality highly creditable to their judgment, and to their independence of those prejudices which still too much prevail. During the Session the discussions at the meetings were well sustained. Original Essays and Lectures were brought forward by the members in rapid succession, and, not only were the regular days of meeting provided for, but various additional meetings were held, at which discourses were read. It is proper to exhibit a list of the subjects of discussion.—1835, December 17. Dr Murray; On the Osteology of the Cranium, illustrated by skulls and separate bones.—December 24. Mr Allan; On the Anatomy of the Brain, with a dissection.—1836, January 14. Mr Barclay; On the Domestic Group of Propensities.—January 28. Mr Bouchard; On Destructiveness and Combative-ness.—February 11. Mr Moffat; On Benevolence and Conscientiousness.—February 25. Mr Webster; On Veneration, Hope, and Wonder.—March 3. Mr Bouchard; On the Cranium of Haggart, executed for Murder.—March 10. Mr Ogilvy; On Comparison and Causality.—March 24. Mr A. Fyfe; On Self-esteem, Love of Approbation, and Cautiousness.—March 31. Mr Robb; Objections to Phrenology, as liable to the charges of Novelty, Empiricism, Fatalism, Materialism, non-accountability of Mankind, degradation of man to the level of the brutes, delusive prognostication, vagueness, and want of evidence.—April 7. Mr Edwards; On Ideality and Wit.—April 21. Mr Hunter; Defence of Phrenology against Mr Robb's Objections.—April 28. Mr Rodger; On Ideality, Wonder, and Wit.—May 12. Mr Henderson; On the modes of activity of the Faculties.—May 24. Mr Moffat; On Locality.—June 3. Dr Murray; Objections to some of the functions ascribed to Locality.—Messrs Hunter, Ogilvy and Moffat; Answers to these Objections.—On each of the occasions enumerated, a general discussion, more or less animated, succeeded the reading of the discourse, and numerous examinations of crania and busts were resorted to in illustration; nor is it too much to say, that many valuable observations were elicited, and much additional zeal and vigour given to the debates. The result has been similar to what has elsewhere taken place. Those who had only for the first time turned their attention to the subject, were surprised at the discovery of truths equally novel and important;—those who had previously studied the science and admitted its truth, had their conviction confirmed and established;—and those who had formerly doubted or disbelieved, had their doubts and unbelief removed. In the words of the poet, some 'who came to scoff remained to pray'; and, it is only proper to add, that the intelligent gentleman who brought forward, so forcibly, the long array of objections to the science, frankly admitted that although the marshalling and urging of these objections might have created doubts in his mind, these doubts were in the end completely dissipated."

The report goes on to mention the lectures by Mr W. A. F. Browne, of which a notice was inserted in our last Number; and three lectures by Mr Dorsey, chiefly on his plan of education (based on phrenological principles) in the English class at the High School of Glasgow. Mr Dorsey was invited to lecture by the magistrates, on a representation by the Society.

The annual general meeting of the Society was held on 3d November: when office-bearers for the ensuing year were elected, and the following honorary members were enrolled, viz.: The Right Hon. Lord Douglas Gordon Hallyburton, M. P., Mr Sheriff L'Amy, Messrs George Combe and Robert Cox of Edinburgh, Mr W. A. F. Browne of Montrose, and Mr Dorsey of

Glasgow. After the business of the meeting was concluded, upwards of forty of the members sat down to an excellent dinner in Ross's lun.—Mr Hunter, President of the Society, in the chair—Mr Barclay, croupier. In a succession of speeches, which are fully reported in the *Montross Review* of 11th November, the following toasts were proposed:—"Prosperity to the Institution," and "The Memory of Drs Gall and Spurzheim," by Mr Hunter; "Mr George Combe," by Mr Barclay; "The Office-bearers of the Society," by Mr William Whyte; "Mr Sheriff L'Amy," by Mr Carnaby; "Mr Robert Cox," by Mr Paul; "Mr W. A. F. Browne," by Mr Ogilvy; "Dr Elliotson, and the Phrenologists of London," by Dr Murray; "Dr Caldwell of the Transylvania University," by Mr Charles Rodger; "Dr Andrew Combe," by Mr J. F. Allan; "Dr Vimont of Paris," by Mr A. F. Fyffe; "The universal ascendancy of Truth," by Mr Henderson; "The teachers of youth, members of the Society," by Mr Whyte; "Dr Welsh, and the clergymen who have embraced Phrenology," by Mr Robb; "Mr Dorsey of Glasgow," by Mr Haldane; "The Magistrates and Town-Council of Forfar," who had accommodated the Society with the use of the council-chamber for their meetings, by Mr Barclay; "Lord Brougham, in connexion with Mechanics' Institutes," by Baillie (now Provost) Lawson; "Mr Ferguson of Raith, M. P." by Mr Rodger; "Sir George Mackenzie," by Mr Webster; "Mr Simpson of Edinburgh," by Mr Bouchard; "Dr Dick of Wroughty Ferry, another eminent writer on education," by Mr Charles Young; "Dr James Johnson of London," by Mr Edward, surgeon; "Dr Otto of Copenhagen," by Mr Booth, surgeon; "Mr and Mrs Aitken," lecturers on phrenology, by Mr William Smith; "The Memory of Mr Henderson, younger of Warriston," by Mr John Cooper. "Many other toasts and sentiments," says the *Montross Review*, "were given, and in the course of the evening the company was enlivened by many excellent songs. The toasts were followed with appropriate tunes by Allan and his band. On the whole, we never have had occasion to notice a more intellectual and harmonious meeting."

CARLISLE.—Mr Fife of Newcastle, delivered, on Thursday evening last, to the members of the Mechanics' Institute, a very interesting lecture on the science of Phrenology. His remarks were listened to with great attention by a numerous and highly respectable audience; and it is but justice to say, that his defence of this theory of the mind from the many objections that have been raised against it, was masterly and complete. Mr Fife did not enter into any of the details, but confined himself merely to an explanation of the leading principles of Phrenology. These principles it was shewn have been acknowledged by all physiologists from the days of Aristotle down to the present time, and are alike consistent with science and religion, and form the only rational mode of accounting for the many complicated phenomena of the mind, and its mysterious connection with matter.—*Carlisle Journal*, 15th Oct. 1836.

BATH.—A Phrenological Society was formed here in October. It started with twelve members, among whom are those able supporters of the cause, Drs Barlow and Cowan. Mr Cembe has received an invitation to lecture in Bath.

SOUTHAMPTON LITERARY AND SCIENTIFIC INSTITUTION.—On Tuesday evening a lecture was delivered by Mr J. R. Stebbing, on the Physiology of the Temperaments in connection with Phrenology, principally exhibiting their divisions and combinations, and the importance of taking their influence on cerebral organization into account in every case. In introducing the subject, the lecturer called the attention of the audience to the vague and unfair manner in which some writers attacked the science of Phrenology, and read from a work just published, Meryon's Constitution of Man, p. 200, an assertion "that the Phrenologist tells us that there is nothing in temperaments," an assertion and judgment respecting Phrenology which the lecturer observed must have been made without a perusal of the works of either Spurzheim or

Combe, the only authors who have given to the world what may be considered text-books of Phrenology, which flatly contradict the objector, by specifically urging the importance of the temperaments in connection with organization. He referred to Combe's System, p. 32, and Spurzheim's Characters, p. 16, who also gives a plate exhibiting the four temperaments. It was announced that on Tuesday evening next Mr Bullar would continue his lectures on Egypt.—*Hampshire Advertiser*, 15th Oct. 1836.

NEWCASTLE.—On Thursday the 6th of October the first anniversary meeting of the Phrenological Society of Newcastle was held, T. M. Greenhow, Esq. in the chair. The Secretary, Mr W. Cargill, gave a report of the proceedings of the past year, which were, *inter alia*, two lectures on Phrenology by Mr Fife, a paper by Mr Rankin on the Doctrines of Helvetius, and one by the Secretary on the "Education of the Moral Feelings." There were only two busts added to the collection during the year; one of Pallet the murderer, whose organization had before been described, and the other an elegant bust of Sterne, the coincidence of which with the character of that author, as exhibited in his writings and life, Mr Cargill promised to take an early opportunity of shewing. He then gave a sketch of what had been done in England and France by phrenologists during the past and present year. M. Dumoutier of Paris was elected an honorary member of the Society. A letter was read from Walter C. Trevelyan, Esq. at present residing in Rome, to Mr Fife, to the effect that he had heard with pleasure of the establishment of a Phrenological Society in Newcastle,—that he considered Phrenology eminently calculated to promote the moral and political welfare of mankind,—and requesting that he be proposed as an ordinary member at the first meeting, which was done. After some conversation on different subjects connected with the Society, Mr Cargill presented casts from the heads of the French criminals Lacenaire, Avril, and Fieschi, explaining the developments of the two former, and giving an account of their history, character, and unfortunate end. He contrasted the large endowment of Intellect and Ideality of Lacenaire with the miserable development of the same regions in the heads of Avril and other criminals; pointing attention, at the same time, to the great amount of these qualities actually manifested by this extraordinary criminal, who thus far differed from persons who are usually convicted of habitual crime. The moral region was proved to be of very small size, while the animal portion presented an extraordinary volume. The development altogether was highly illustrative of the truth of Phrenology, and harmonised exactly with the dispositions exhibited by Lacenaire from his infancy. Mr C. concluded by declaring his intention to read a short paper at the next meeting on the development and character of Fieschi.

In addition to this Society there is another Phrenological Society in Newcastle, which was established about the same time, in connexion with the Literary, Scientific, and Mechanics' Institution, and has since continued to have monthly meetings. In June last the number of members was forty-one—four of them medical gentlemen. The Society possesses a collection of casts and skulls, purchased by subscription. We learn that the meetings are well attended.

In consequence of a requisition signed by forty of the most respectable of the inhabitants, Mr Simpson delivered a course of eight lectures in Newcastle on Mental, Moral, and Educational Philosophy, in the two first weeks of November, to a numerous and constantly increasing audience. The lectures produced a strong sensation, which among other indications shewed itself in Mr Simpson being honoured with a dinner, at which a number of the first characters of Newcastle were present. Mr Simpson concluded at Newcastle an extensive educational tour, in his way back from the Meeting in August of the British Association at Bristol. When there, he explained, at the request of a number of the members of the Association, his educational views to a large assemblage: and in acceptance of numerous signed requisitions, he delivered a short course of lectures at Leamington, Coventry, Derby, and Worcester. On his way to Newcastle he delivered, by request, one lecture

at Birmingham, where a resolution was passed that Mr S. be requested to return and deliver an entire course, as soon as convenient for him. To this he willingly pledged himself, as he has done to several other large towns. At the different places where Mr S. lectured, he was received in the most flattering manner; found a numerous committee acting for him, with all arrangements made; and experienced every where the kindest hospitality. Finally, and most important, in each place where he delivered a course, he had the satisfaction to be present at a meeting of influential persons, preparatory to calling a general meeting of the inhabitants to form a Society for promoting education, on the principles which he had expounded. We rejoice in these signs of the times. It requires a zealous *vis à vis* expositor—one, like Mr Simpson, of ready, lively, and unflagging speech—to rouse the public, immersed as they are in antiquated prejudices, to the novel views which are destined to produce so great a change in the moral world,—and that by demonstrating that, as opposed to the world of selfishness, there is a real every-day moral world, in which it is man's best interest to live. This was felt to be very new, but not less to be undoubtedly true. In none of his lectures, we are informed, was Mr S. more effective than in that in which he demonstrated that while honesty is good policy, benevolence must be superadded before man can be happy, either here or hereafter. We applaud Mr Simpson's resolution to visit the larger towns which are sufficiently awakened to the necessity of sound principles in education to invite him. In our opinion, the views which he promulgates are eminently calculated to promote the welfare of mankind; and we consider that, in diffusing them extensively, he is conferring an important benefit on his country.

PORTSMOUTH PHRENOLOGICAL SOCIETY.—During last winter session, the evenings for lectures were all occupied, and frequently the lectures were attended by crowded audiences. The session was commenced by an introductory lecture from Dr Scott of Haslar, "On the growth of bone, referring more particularly to the fetal skull, and its formation from birth to puberty." The following six evenings were occupied by the Secretary, Dr Engledue, with elementary lectures on Phrenology, which he means to extend during the next session. Two evenings were filled up by Mr Barnard; one with a paper on Ideality, the other by a paper entitled "Some observations on the human mind, with remarks on Phrenology." Mr Tichborne occupied ten evenings with lectures on Phrenology, embracing an analysis of the faculties, a review of all the objections brought against the science, and a demonstration that twenty-seven of the phrenological faculties are admitted by the most eminent British metaphysicians. The Society also met several times for private discussion. We are pleased to learn that one of the members, the master of the *Buffalo*, which lately sailed for New Zealand, has promised not to overlook opportunities of procuring skulls. Masters and surgeons of ships have much in their power to benefit science in this way.

WINCHESTER MECHANICS' INSTITUTE, Nov. 9.—Mr Stebbing of Southampton delivered a most able lecture this evening, "On the Science of Phrenology." He appeared to convey a large portion of his enthusiasm to his audience, whose marks of approbation were very frequent and very cordial. In conclusion, Mr S. stated his intention of delivering a further lecture upon the same subject, on Wednesday evening, the 23d instant, when he would be happy to meet any objections to the science.—*Salisbury Herald*, 12th Nov. 1836.

SIR G. S. MACKENZIE'S APPLICATION TO LORD GLENELG.—In February last Sir George Mackenzie sent to the Right Honourable Lord Glenelg, Secretary for the Colonies, a representation of the evils which arise from the indiscriminate transportation of criminals to New South Wales, without regard to their dangerous qualities, whereby the lives and property of the settlers are endangered. Sir George submitted to his Lordship that the history and character of each convict should be inquired into, and the best se-

lected for the colony, and the worst kept for discipline at home; and that there ought to be an officer qualified to investigate the history of convicts, and to select them on phrenological principles. In order to satisfy Lord Glenelg that Phrenology was capable of furnishing valuable assistance in discriminating the dispositions of criminals, Sir George made the following proposal:—"Let your Lordship direct inquiry to be made into the circumstances which brought a given number of convicts to trial and punishment, and if possible let so much of their previous history as can be got at, be stated. Suppose the number to be fifty. Let these be numbered, and their history, trial, and crimes inserted in a catalogue—of course I trust that this shall be as correctly done as possible, and in strict good faith. Let this catalogue be laid aside. On being informed that this has been done, I will go to London, and take with me an experienced phrenologist. Let the convicts be brought to us one by one, and we will make a catalogue of our own in the same order, and in it we will enter what we deem the characters of the individuals to be, and what were the crimes they probably had committed; and likewise, we will state, in particular cases, what employment, or at least the nature of the employment, they had probably been engaged in, and that in which they are likely to be useful. The only information we will desire is, whether the individual has or has not been educated. We will examine the individuals in the presence of whom your Lordship pleases. When our catalogue shall be completed, we will then request a meeting with your Lordship and such friends as you may wish to be present, and that the catalogues shall be publicly compared; reserving only this, that if any discrepancy of importance shall appear, we shall be permitted to question the subject, and to make inquiry into the case ourselves, attended by those who made the previous inquiry. The result of such an experiment as this, will, I venture to predict, satisfy your Lordship that means do exist for the selection of convicts for the Colonies, and for their classification for treatment. I refer your Lordship to the fact of my friend Mr Combe having actually done what is here proposed, at Newcastle, in October 1835, as narrated in the *Phrenological Journal*, No. 46, page 524, of which a copy accompanies this communication. If I can prevail on you to make this experiment, I shall ever feel deeply grateful, and your Lordship will gain the gratitude of all truly wise patriots, and lay the foundation of a benefit to your country such as no ruler has yet conferred either for effect or extent." Sir George afterwards transmitted to Lord Glenelg a great number of testimonials, collected from eminent phrenologists throughout the United Kingdom (and which are printed in the appendix to the 4th edition of Mr Combe's *System of Phrenology*), assuring his Lordship that the science might be applied in this way with signal advantage. The matter was considered by Lord Glenelg to fall within the province of the Secretary for the Home Department, to whom Sir George was referred. The Representation and Testimonials were accordingly sent by Sir George to Lord John Russell, who immediately intimated that he would attend to the subject as soon as he could find an opportunity of doing so. This was in the end of June, and no farther communication has been received from his Lordship.

TABLES OF THE SKULL.—"A comparison of the external and internal surfaces of the cranium establishes the fact, that there is a general correspondence of the two, as far as regards those parts which are in contact with the periphery of the brain. But, between the several divisions of that organ, there are developed on the inside of the skull very large ribs and processes which destroy the particular correspondence of the two surfaces. Nevertheless, this does not impair our ability to deduce the internal capacity of the cranium from an examination of its exterior; since the diplœ between the two plates in the spaces intermediate to these ribs seldom varies more than one or two lines in its thickness."—*Cyclopædia of Anatomy and Physiology*, edited by Professor Todd; article CRANIUM.

CURIOUS CASE OF INSANITY.—A member of the University of Oxford, fancying himself dead, laid himself down on his bed, waiting to hear the bell

toll on the occasion, which not being done, he became extremely enraged at this want of decency, got up, ran into the church, and began to toll it himself. Some one strongly urged to him the folly and absurdity of a man tolling his own passing-bell. He was so forcibly struck with the justness of the observation, that he returned to his own house *mente sana*.—*Marshall's Morbid Anatomy of the Brain*, p. 275.

ADVANTAGES OF PHRENOLOGY.—Mr Saunders, in his little work called "What is Phrenology?" has the following passage:—"Phrenology boasts this great superiority over physiognomy—that while the latter discovers only what a man *is*, the former tells him what he *may become*. While physiognomy declares only something of his character, already modified by circumstances and altered by imitation, phrenology predicts what his powers would be if submitted to a proper regimen and duly exercised, and points out the nature of the education necessary for their plenary development. There are no cases in which the application of phrenological principles has yet appeared to better advantage than in the treatment of mental aberrations. No more satisfactory proof of this could be referred to than the extraordinary success of the experiment at the Hanwell Lunatic Asylum. Regarding the brain not as an entire organized mass, but as an assemblage of organs, some of which may come into a morbid condition while the rest may remain comparatively healthy, the course pursued at that institution has been by kindness, and engaging the attention of the patient, to exercise those organs which are sound, and, by diminishing the action of those which are in a diseased state, to restore them to the healthy performance of their functions. And the success which has attended the experiment stands without precedent in the annals of insanity."

SENSE OF TOUCH.—Lord Brougham seems to have adopted the views expounded by Mr Simpson in our 43d Number, in so far as they relate to the fact that two senses have hitherto been mistaken for one. In a note on page 111. of his *Discourse of Natural Theology*, his Lordship says:—"The common classification of the senses which makes the touch comprehend the sense of heat and cold, is here adopted; though, certainly, there seems almost as little reason for ranging this under touch, as for ranging sight, smell, hearing, and taste, under the same head."

FAMILY CONCERTS.—In most families in England where music is taught, it is the custom for every individual, male and female, to receive instructions on the piano, and each practises in separate rooms, or, at least, at different times. If, instead of this, one were to learn the harp, another the piano, a third the violin, and the rest the tenor, violincello, flute, &c., what delightful concerts might take place within the family circle, and far greater pleasure would fall to the share of both performers and listeners from these domestic concerts, than where each takes his solitary practice, to the great annoyance, perhaps, of all the rest. There is probably nothing more prejudicial to the "divine art" in England, than the prevailing custom of learning only the piano—and that but indifferently. If the organ and organ-music had the attention paid to them which they deserve, great improvement might reasonably be expected.—*The Analyst*, No. XIV.

CONFUCIUS.—Our attention has been directed to a passage in Gutzlaff's History of China, containing an allusion to the head of the famous Chinese moralist. "His mother, Yen-she," says the historian, "bestowed upon him the name of E-kew, (hillock), for the crown of his head was a little elevated." Vol. i. p. 188. This would seem to indicate a great development of the organs of Veneration. "He was a man," it is added p. 191, "of very commanding aspect, tall and well-proportioned; in his manners very decorous, kind to his inferiors, and temperate in his habits; so that his disciples by his sole look were inspired with reverence."

CURIOUS TRIAL CONNECTED WITH PHRENOLOGY.—An action has been commenced against a Paris paper, the *Messenger des Chambres*, which is ac-

cused of defamation on the following singular ground:—It appears that on the 28th of August last the *Messenger* gave a report of a meeting of the Phrenological Society of Paris, at which M. Gaubert gave an account of an examination made upon the skull of a widow lady, named Cheron, who had been murdered. The *Messenger* stated, that “the characteristic and prevailing ruling passions of the lady were cunning, and a love of money. The correctness of this opinion astonished every one, because it was afterwards ascertained that she was a very covetous woman, and made a great deal of money by usury. Indeed it was the knowledge of her excessive love of money which led to the idea of having her skull examined.” The *Messenger* entered into other details connected with the phrenological inductions to which the examination of the skull had led; inductions which, it said, were anything but flattering to the deceased. The suit is preferred by three relations of the deceased, who allege that the *Messenger* has attacked the honour and the reputation of her family by a pretended scientific dissertation upon her skull, which must have come into the possession of those who examined it by means not within their knowledge. Dr Gaubert is accused of a false report upon the subject, and the *Messenger* of adopting it. The trial is expected to give rise to some laughable disclosures.—*Paris paper.*

APPLICATION OF PHRENOLOGY TO RELIGION—Dr Epps, in the second edition of his “Internal Evidences of Christianity, deduced from Phrenology,” lately published, makes the following remarks on an objection which is sometimes urged, by persons ignorant of the evidences of Phrenology, against its application to matters of history, government, literature, and religion. “They think it wrong, that a science, according to them not yet established, should be applied to these subjects. In order to obviate this objection, and to remove the apprehensions of some at the following employment of this science in relation to Christianity, the truth must be stated, that its principles rest upon no other foundation than the solid rock of observation. These have been accumulating for years, and will continue to accumulate till the human mind has for ever ceased its functions; a period when neither Phrenology nor any other human science will any longer be applicable. If, then, we were to delay the application of the principles of Phrenology till the mighty structure be completely reared, we should delay till the end of time; for, till that period, the science will be receiving accessions. Indeed, the applications serve to build the fabric quicker by enabling its architects to bring supplies from every quarry out of which the human mind has worked materials; and the readiness and the neatness with which the matters collected help to form the fabric, show that the principles of the science agree with those of nature, and its professors to be skilful master builders. Yet some people would have the Phrenologists delay. These persons, however, do not argue thus with respect to other sciences. Chemistry, the present system is referred to, has been established but a few years, and yet who refrains from applying it? and who objects to the application? No one; indeed, the man would be reckoned a fool who should say to a chemist, ‘Your science, sir, is not established; you must not apply it to the illustration of chemical phenomena.’ The objection, that Phrenology is applied too far and in too many ways, is often made in a very angry spirit. People might as well be angry, that out of twenty-six alphabetical letters, many thousand words are made: or that, from seven notes of the gamut, such a countless number of sounds should be worked.”

EFFECT OF DISTURBANCE OF THE NERVOUS SYSTEM ON INTELLECTUAL ACUTENESS.—When Lord Sunderland was at the Hague, he contracted a particular intimacy with Mr Cunningham (author of the History of Great Britain), as they were both remarkable chess players. Whenever his Lordship was at leisure, he either drove to Cunningham’s lodgings, which were at some distance, or sent his carriage for him. After playing for a course of time, Lord Sunderland discovered that he who was jolted in the carriage before they sat down, was always sure to lose every game; for which reason he gave over going to Cunningham’s, but always sent for him, and always beat him, to his no small astonishment, as he was conscious that he understood the game as well

as his adversary. At last, when he was very much out of humour, Lord Sunderland told him the trick, and Cunningham insisted that they should drive to one another's lodgings alternately, which confirmed his Lordship's observation, and restored Cunningham to his former level; for, from that time, they won and lost alternately. This fact, which appears not at all incredible, for the streets of the Hague were not, in the last century, so smooth as those of London are at present, proves how nicely the capacities of Sunderland and Cunningham were balanced against each other; but it is more curious and interesting on another account—it shews the intimate connection between our corporeal frame and the faculty of thinking.—*Thomson's Introduction to his Translation of Cunningham's History of Great Britain.*

In last number, we quoted from Mr Watson's "Statistics of Phrenology," the following hint to the conductors of this Journal: "Let them call on the regular subscribers to their Journal to send such objections and suggestions as seem called for [to remedy the defects in the mode of conducting it], free of expense, legibly written, and limited to the compass of a common letter-sheet. Let these be compared, and let due attention be paid to the opinions most numerously supported." We invited subscribers to favour us with such communications accordingly, and promised to give them due attention. Only three have been received—two entirely approving of the manner in which the Journal is conducted, and the third, from Mr Watson himself, suggesting that our matter should be divided into heads, one or more of which might be omitted whenever there was a deficiency of materials for it. The heads, he suggests, might be:—1. Original Papers; 2. Reviews; 3. Short Notices of new Works; 4. Short Communications; 5. Intelligence or Miscellanies. Mr Watson's suggestions are good, and we mean to adopt them to a considerable extent. A complete separation of the original papers from reviews would be productive of less advantage to our readers than inconvenience to us, and therefore we intend to mingle them as hitherto. In this Number, however, we have established heads for "Short Communications," and "Short Notices of Books," in addition to the "Miscellaneous Notices" which have always been given. We shall continue these in subsequent Numbers, and now respectfully solicit short communications (post-paid) tending to improve or illustrate Phrenology. Of course we cannot pledge ourselves to insert all that may be sent, the space at our command being limited, and it being possible that some of them may be unworthy of publication; but in selecting those to be inserted, we shall ever be guided by the spirit of impartiality, and a regard for the interests of truth. It must be added, that we shall not consider ourselves bound to give reasons for withholding any communication from the public. With respect to the "Short Notices of Books," we have only to announce, that works bearing directly or indirectly on Phrenology which may be sent us, shall be regularly noticed.

Perhaps we ought to apologise for the length of some of the articles in our present Number; but the important nature of their contents rendered abridgment impossible. We allude particularly to Article VII., being a controversy with a distinguished teacher of Physiology, regarding the comparative merits of Phrenology and the philosophy of Reid and Stewart; and to Article X., being a report of a case, of which an account has already been published in the Edinburgh Medical and Surgical Journal, where such a partial statement of the facts is given, that it was absolutely necessary to publish a full report of the whole circumstances.

The communications of Dr Weir and Mr William Hancock junior have been received; but as the press of matter has been such as to render *three extra sheets* necessary in this Number, we have been compelled to reserve them till our next. The communication of our Bath correspondent, who argues against the practice of observing merely the *prominence* of organs in examining the head, would be instructive almost exclusively to readers unacquainted with the standard works on Phrenology. As it is brief, however, we shall try to insert it in our next Number.

EDINBURGH, 1st December 1836.

THE
PHRENOLOGICAL JOURNAL.

No. LI.

ARTICLE I.

SKETCH OF THE CHARACTER AND CEREBRAL DEVELOPMENT OF THE FRENCH CRIMINALS LACENAIRE AND AVRIL, RECENTLY EXECUTED IN PARIS.

IN November 1835, appeared before the Court of the Seine in Paris, accused of murder and robbery, the notorious Lacenaire. The reports of the trial describe him as having a "large head, a high forehead, and a handsome countenance, with an expression full of intelligence;" and add, "that he had received a good education, but that his vicious inclinations had urged him to crime."

In 1829 he was condemned to a year's imprisonment for robbery, and in 1833 he was again imprisoned for thirteen months: on obtaining his liberty he had recourse to literary pursuits to gain his livelihood. He composed political songs and plays, and wrote articles for one of the Journals; but being unable to continue long in any fixed steady employment, he soon returned to his old method of earning his bread by crime. Finally he appeared at the assizes at Paris in 1835, accused of a complication of enormities. A cast of his head was taken by M. Dumoutier before his execution, and afterwards one of his skull, copies of which have been transmitted to us.

On comparing them with those of other criminals, we find the development not to resemble that of ordinary robbers and murderers. This class of people usually present a deficient intellect, and still more deficient Ideality, and have little education; but the criminal we are describing possessed a good intellect, and still more Ideality, both of which became available to him, in consequence of being combined with a very active temperament. His readiness of intellect and facility of expression arising from a good endowment of Language cultivated by a classical education, even procured for him a reputation for talent; and there can be no doubt that he was in reality

a clever and able man, although not exactly a great genius or profound thinker. Such qualities are rare in persons whose life is devoted to the most revolting of crimes. In Lacenaire, however, this combination existed; and it is one of the many proofs that morality and religion are not conferred by intellect alone. The examination of this cast shews us an extraordinary case of coincidence between development and actual character; for the unfortunate notoriety connected with his name, and the interest excited by him in the French capital, at the time of his execution, have caused the history of the criminal, from his boyhood, to be laid before the public.

The following are the dimensions of the skull, and of a cast of the head taken after death.

	Skull. In.	Head. In.
Greatest circumference,	21	22½
From Philoprogenitiveness to Individuality,	7½	7½
... Concentrativeness to Comparison,	6½	7
... Destructiveness to Destructiveness,	5½	6½
... Secretiveness to Secretiveness,	5½	6½
... Cautiousness to Cautiousness,	5½	5½
... Ideality to Ideality,	5	5½
... Acquisitiveness to Acquisitiveness,	5½	5½
... Combativeness to Combativeness,	5	5½
... Ear to Philoprogenitiveness,		4½
... ... Individuality,		5
... ... Comparison,		5½
... ... Firmness,		6

The activity and intensity of action of the brain of Lacenaire seem to have been great. His temperament is stated in the reports of his trial to have been bilious-sanguine, which always indicates great activity.

On looking at the anterior part of the head we find it large, unlike, as we have said, that of most criminals; the reflecting organs are well developed, and the organ of Ideality is large. We all know the influence which a good reflecting intellect and lively imagination must have on a man's character. If this criminal had exhibited in his conduct no signs of talent, but only the grovelling propensities common in men who choose robbery and murder as a profession, then would Phrenology have been at fault; but those who are acquainted with the history of Lacenaire, are well aware that he formed a remarkable exception to ordinary criminals, in the extent to which he displayed both intellectual and imaginative powers. In proof of this, we may refer to the account of him given by the editor of the French newspaper *Constitutionnel*, in the Number of the 14th of November 1835. "In vain," it is said, "would you seek in the language and manners of this man, any more than in his expression of countenance, the slightest trace of ferocity. He is affable and engaging; his conversation is solid and ele-

vated ; he has travelled a great deal—studied a great deal—reflected a great deal ; he discusses with facility the gravest questions of social interest—he treats them with great elevation of thought and power of intellect, and without being at all moved by his pending fate.” The writer then in a vein of astonishment exclaims, “ Why has not this man applied to a useful, to a noble object, so great an extent of intelligence ? Why has he aspired to lower himself, to make himself an object of horror ? Do not think that he was born, was fatally organized for crime ! oh ! ye who thus systematize man, it is Lacenaire himself who is here to refute you ! ” He then goes on to say that, after his condemnation, Lacenaire “ tranquilly sat down in the prison amongst some men of letters, advocates, and a physician ; and conversed with them on topics of literature, politics, morals and religion, with a force, a justness of idea, and a depth of reflective power, which few could lay claim to.” Any one who may be disposed to question the account of this journalist, has only to consult Lacenaire’s autobiography, published at Paris in two volumes, containing his poetry and other compositions ; and he will thereby be fully convinced that his Ideality and intellect, although not of the highest character, were decidedly above mediocrity. Here, then, we see a man whose life has been a course of crimes of the blackest character, and who at the same time exhibits no mean intellectual powers. Such a union is not very often found in the same individual, but it *existed* in Lacenaire ; and in contrasting his forehead with that of numerous other criminals in our possession, we are struck with its superiority to them in size and development. *Why* should there be such a difference ? Surely no one will say that it is a *mere casual coincidence* ?

The French editor asks, why a mind of so much intellect “ aspired to become an object of horror,” instead of an ornament to society. An examination of Lacenaire’s cerebral configuration would have enabled him to solve the difficulty, by referring to the predominance of the animal feelings over the moral sentiments. On drawing a line from Causality to Cautiousness, the quantity of brain above it, where the moral organs are situated, is observed to be small, while those of the animal propensities, lying all below the line, are enormous. The difference in volume of the two regions is so striking as to require but a glance to convince the most sceptical ; and yet a periodical * laying claim to talent and respectability has not hesitated to describe this skull as “ being phrenologically endowed with all the qualities of a *good, mild, kind, sensible, and religious* man, holding injustice in horror, and a hundred

* Gazette Medicale of Paris.

thousand leagues from being an assassin." It proceeds : " There is a marked development of all the anterior and *superior* parts of the cranium, and as remarkable a *smoothness* of the two sides, particularly in those parts which are said to correspond with robbery and murder. The organs of *Benevolence*, and above all *Veneration*, are *largely developed*."

If the enlightened writer of this nonsense had enabled his readers to judge for themselves, by laying before them an engraving of Lacenaire's skull, accompanied by one of the negro Eustache, or of the first half dozen persons he might meet on the street, we are of opinion that this would have done him more credit than his positive assertions on a subject he shews such ignorance of, which are proved, on the slightest glance, to be so widely incorrect.

Firmness is extremely developed ; but on each side of it the head slopes down, indicating a small Conscientiousness, whilst the organs of Self-Esteem, Secretiveness, and Destructiveness, are exceedingly large, especially the two last. Acquisitiveness and Combativeness are also large, although the latter is considerably smaller than Destructiveness. Adhesiveness is moderate, or rather small. The weakness of the moral region was too great to control this overwhelming extent of propensity ; there were not even the kindly affections to come to their assistance. This is one of the most unfortunate developments that could exist, and in the life of Lacenaire are to be traced the deplorable workings of it. He was the son of a wealthy merchant at Lyons, was sent to school near that place, but was repeatedly expelled for habitual and incurable outrageousness of conduct ; he was then sent to a college at Aix, where in a few days his vicious disposition procured him the hatred of his teachers and schoolfellows, and an immediate expulsion from that seminary. On his dismissal, the professor at the head of the establishment remarked, that,* " if the torrent of his passions remained unchecked, he would turn out a monster that would one day be brought to the scaffold."

This prediction was unhappily destined to be verified. His ardent imagination, led away by his inordinate pride, vanity, and dishonest selfishness, rendered a life of legitimate industry insupportable to him ; he ran away from his father's house and business to seek in Greece pursuits more congenial to his mind ; pressed by poverty, he returned to France, and went to Paris, where, being without means, and unwilling to work, he became desperate. After killing the nephew of Benjamin Constant in a duel, he deliberately made up his mind to give unrestrained licence to his passions. His moral sentiments were too weak to lay before

* Constitutionnel of November 30. 1835.

his intellect the *true* cause of his misery, viz. his own idleness and depravity, and to make him resolve to use his talents and acquirements in obtaining an honest livelihood; he therefore preferred excelling in the character of a robber and a murderer, and, pretending to look upon himself as the "victim of society" (such are his words), he proceeded to visit upon *society*, as he termed it, the penalty due for its imaginary ill-treatment of him. He was finally brought to justice, and during his trial made confessions detailing a career of crime that filled all Paris with horror.

It is curious to remark, in regard to other faculties also, the minute coincidence of the character of Lacenaire with the development of his brain. The posterior region displays a very large organ of Philoprogenitiveness, which is the more conspicuous from the small Adhesiveness which adjoins it. In exact conformity we find the criminal saying of himself, that while he *would never have hesitated to sacrifice either man or woman or friend of any kind, when he stood in his way*, he "*could never have had the courage to kill a child, even had he been sure of enriching himself by its death*;"* and yet this is the case which is said to give a deathblow to Phrenology!

In most criminals the organ of Amativeness is largely developed, and abuse of the sexual feeling is generally one of the causes of their dissipation, and one of their incentives to crime. In Lacenaire the organ is, however, of very moderate size, and from the same authority it appears that he "had very little inclination for women," and that his dissipation consisted in drinking to excess. To such an extent did he carry this passion, that when in prison he sold his pantaloons to procure wine, and added, with a laugh, that the officers would be obliged to buy a pair for him to take him to the scaffold! The organ of Alimentiveness is so prominently marked, as to lead us to infer that eating and drinking would be among his chief pleasures. It is recorded indeed, that he enjoyed greatly the numerous pies sent to him in prison, and that he held his Christmas very gayly with Avril.

There are those who accuse Phrenology of saying that this person was born for crime; but was it the fault of Phrenology that he ran the course he did? It was not Phrenology that caused the professor at Aix, in dismissing him as hopeless, to predict that he would one day turn out a monster worthy of the scaffold. Phrenology would *not* say that he "was born—was fatally organized for crime;" but it would indicate, as the *actual disposition* of the pupil did to the professor, that if his powerful animal propensities were allowed to have the ascend-

* Gazette des Hopitaux, 1 Mars 1836.

ant, he would be a monster of iniquity, instead of an ornament to society, as his talents and attainments, turned in the right direction, would have made him. Although circumstances were not unfavourable to him, and his opportunities of gaining an honourable and sufficient living were numerous, yet he constantly rejected them, and during his whole life exhibited a character unhappily but too much in accordance with his organization, viz. great intellect and Ideality, still greater animal propensities, with feeble moral sentiments. Such was Lacenaire! Let those who doubt the truth of Phrenology read his history, compare it with his cerebral development, and account for the remarkable coincidence between them.

Avril.—We had likewise procured a cast of the head of the criminal Avril, an accomplice of Lacenaire in some of his delinquencies, and who was executed along with him for the brutal murder of a widow and her son. This head is very different from that of Lacenaire; the reflecting intellect is miserably deficient, as also the organs of Ideality and Hope. Conscientiousness is small, but Benevolence and Veneration are pretty well developed, and Adhesiveness and Philoprogenitiveness are large. The organs of Combativeness, Destructiveness, Secretiveness, and Acquisitiveness are very large. The general size of the head is large, the greatest circumference measuring $23\frac{1}{4}$ inches.

	Inches.
From Philoprogenitiveness to Individuality, greatest length	8 $\frac{1}{2}$
..... Ear to Philoprogenitiveness,	5
..... Individuality,	5 $\frac{1}{2}$
..... Benevolence,	6
..... Firmness,	6 $\frac{1}{2}$
..... Self Esteem,	5 $\frac{1}{2}$
..... Destructiveness to Destructiveness,	6 $\frac{1}{2}$
..... Secretiveness to Secretiveness,	6 $\frac{1}{2}$
..... Combativeness to Combativeness,	5 $\frac{1}{2}$
..... Cautiousness to Cautiousness,	5 $\frac{1}{2}$
..... Acquisitiveness to Acquisitiveness,	6
..... Ideality to Ideality,	4 $\frac{1}{2}$
..... Constructiveness to Constructiveness,	5 $\frac{1}{2}$

This development would indicate natural dispositions widely different from those of Lacenaire. The intellect of Avril would be so weak as to leave him much under the influence of men more able than himself, and to unfit him for choosing a path of his own, and Conscientiousness too weak to enable him to resist, without difficulty, any wrong one that might be proposed by others. The organs of Combativeness, Destructiveness, Secretiveness, and Acquisitiveness are large, and, if excited to predominant activity, would render him coarse and reckless in his conduct and dispositions; but were he placed in circumstances

calculated to restrain their activity, and to call into constant exercise his Benevolence, Veneration, Adhesiveness, and Philoprogenitiveness, then he might appear to be of a kind and obliging disposition, and would actually be so until something occurred to rouse his inferior faculties. It may seem to many not very probable, that a person at one time kind and obliging, should be so readily converted into an atrocious robber and murderer ; but, in estimating character, it is necessary to take into consideration the external circumstances which act as exciting causes to the several organs. In the lives of individuals nothing is more frequent than the existence of particular circumstances adapted for exciting certain groups of organs, which, habitually acting together, have the effect of determining the character. This man's head is peculiarly liable to be acted on by the circumstances that the possessor might happen to be placed in, for Intellect and Conscientiousness are too feeble to offer much resisting power to temptation, especially when utterly uneducated, as was the case with Avril. Accordingly we find this to be verified by the man's actual character. He was for some time out of the way of temptation, while in the service of a family in the country, and was then not remarked for any thing unusual, but generally shewed himself to be a quiet and obliging individual. This was natural, for he was then placed in a situation adapted for exciting, not his lower propensities, but his Benevolence, Adhesiveness, and Love of Approbation ; and, this group being active for the time, he exhibited an obliging disposition : but shortly afterwards coming to Paris, and getting unfortunately into the company of Lacenaire, whose acquaintance (being above his rank) greatly pleased his vanity, his strong propensities assumed the ascendancy, and gave him a different character. Lacenaire soon perceived that he might influence him in any way he liked, and he immediately made it his business to bring him over to his own way of earning his livelihood—by robbery and assassination. He had a good deal of difficulty, as he said, to stifle his better feelings, but when he *did* at length succeed, he became a more daring murderer than himself, for then his baser organs became predominant ; and although his kindly feelings frequently checked him, for, it is said, he often remonstrated with Lacenaire, yet Conscientiousness and Intellect were not sufficiently strong to prevent the change in his character. Had they been powerful, they would have served as a rudder to guide the possessor through temptation, and point out the way to reason and to justice ; but from their unfortunate deficiency in Avril, he was alternately governed by his good qualities and his bad ones, as each chanced to be excited, the latter of which soon brought him to the scaffold.

Cases like this are important ones in the hands of practical phrenologists. A man, for instance, has a son, or any person whom he may have the charge of bringing up; finding him with an organization of this description, he is careful to place him, if possible, in a situation where his kindly feelings will be called into action, and where temptations to vice will not be numerous: but how often do we see such persons placed in circumstances where a considerable extent of intellect is required, and this not being exhibited (as must inevitably be the case), altercations with those surrounding him are the result, ill-will is engendered, evil passions are excited, he falls into dis-esteem with his friends, perhaps disgrace;—this contributes still more to excite his passions, when, Conscientiousness not being powerful enough to prevent the predominance of his baser propensities, and intellect too mean to give him elevation of character,—he sinks both in his own eyes and in those of others, and he thus becomes the victim of an unfortunate organization, rendered desperate by improper treatment.

If the principles of Phrenology were more generally understood and acted upon, we are fully persuaded that instances of this kind would happen much less frequently than they now do:—hence the paramount necessity of those who are engaged in the education of youth being acquainted with them.

ARTICLE II.

ON THE PROGRESSIVE DIFFUSION OF PHRENOLOGY.

(Concluded from our last Number.)

IN addition, then, to those peculiar circumstances which must rationally be expected to impede the progress of truth, or, in other words, of Phrenology, in the minds of the individuals of certain particular *classes*; and in addition to the drawbacks which will necessarily exist to the rapid diffusion of every system founded upon novel principles, even among the large body of the public in general, the man who examines the question with a tolerable degree of observation and knowledge of human nature, such as Phrenology alone can give him, will, upon consideration, be prepared to expect that circumstances of a *local* character may frequently exist which will cause the progress of Phrenology to proceed with less rapid strides among those who fall within the influence of such peculiar circumstances, than among those surrounded by the influence of circumstances of a somewhat different character. This rational expectation will be found confirmed in a remarkable degree upon reference to

the actual fact, as exhibited in the different sets of trade and commerce in this country.

To one acquainted with the true science of human nature, and accustomed to reflect much upon the different modes of operation which, under different circumstances, the human mind exhibits, and joining to this knowledge and this habit an acquaintance with the different commercial and civil institutions and relations existing in different localities, it will be fully evident that there are many circumstances connected with particular habits of commercial institutions,—with particular results of certain branches of commercial enterprise,—and with particular characters of civil institutions and relations,—(both consequent upon such commercial conditions and distinct from them)—which will necessarily exert such an influence over the general character of the minds of those coming within the sphere of influence of such circumstances, as to affect in a very material degree the mode of reception with which an appeal of a certain given character will meet.

The different faculties of the human mind cannot be suddenly forced into any mode of action which differs from that to which they have been previously accustomed. The inquirer then, if he would seek to know what prospect of reception awaits a definite appeal, must first endeavour to discover what are the faculties of mind which, under the particular circumstances of the case, have been chiefly called into activity, and what is the *mode of activity* in which it is probable that these faculties have been chiefly engaged. Is the appeal which he would make calculated to excite to activity, and to the same modes of activity, those faculties which, under the peculiar circumstances of the case, have been called into principal exercise, and are therefore in the particular locality more generally and powerfully developed than any others? If so, he may rest satisfied that his appeal will meet with a quick response. The activity of the faculties to which he appeals, will readily seize and apprehend his subject, and since the exercise of an active faculty is very pleasurable, the novelty of the particular object will only cause the apprehension of it to be the more eager. We are of course supposing that there are in this case no individual faculties whose action is highly influential, and which are so strongly repugnant to the appeal as to counteract the influence of the other faculties to which that appeal is grateful.

Success may then be the rational expectation of the promoter of the appeal, under circumstances agreeable to this first hypothesis.

But, on the other hand, is the appeal made to faculties which have never been called into much activity, or whose mode of activity has been widely different from that which this appeal

would induce? Failure is, in this case, as certain as was success in the preceding.

To illustrate and at the same time to apply each of these cases thus hypothetically put :—

In a particular locality—a large manufacturing town for example—we will suppose the faculties which are chiefly called into action, from the peculiar nature of the occupation of the inhabitants, to be simply the lower line of perceptive faculties. In addition to this, the general character of the operations or manufactures carried on within the prescribed locality has, through many generations, been subject to little variation. The town has gone on in a steady course of gradually increasing prosperity, but without receiving at any particular time, or at frequent periods, any grand impetus, or experiencing any revolution, as it were, in the character of its occupation : any changes that have been wrought have been slow and imperceptible. It can need little argument to shew that, in this case, a very considerable degree of intelligence, in the vulgar acceptance of that term, may prevail ; but that there will have been no circumstance which should excite to activity any other than the faculties before specified—the lower line of perceptive. The reflectives and the faculties of Ideality and Wonder will have been little excited, and will consequently be comparatively inactive. Suppose, again, that from the particular civil and social relations existing in such a locality,—and which have originated in a great measure from the peculiar commercial character of the place,—none of those organs shall have been called into general activity which stimulate the desire of elevating the social and civil condition, but such only shall have been excited as lead to contentment and indisposition to attempt any great change.

It must be evident that if, under such circumstances as those described, an appeal be made to the inhabitants,—to comprehend the nature of which requires a considerable endowment of the reflective faculties, and to appreciate the advantages resulting from which requires a full endowment of such faculties as lead the individual to desire to elevate himself above the condition in which he is at present placed,—such an appeal will be regarded coldly, and considered with indifference. The individual making such an appeal will be considered as a visionary, Utopian, and what not ; as one who,—from good motives perhaps, but unwisely,—would wish to inculcate strange and unheard of doctrines,—to broach new and dangerous opinions,—and to excite men, contented with their condition, to desire alteration and improvement.

In another locality the occupations of the majority of the inhabitants shall not have been those of manufacturers ; but they shall have been of a particular and confined character ; of such

a character as to excite to activity only a few of the perceptive, and one or two of the selfish sentiments,—while the reflectives, the social faculties, the nobler and more amiable among the sentiments, shall have been unexcited, and be consequently little active. As little success would attend the propagation of the subject-matter of the given appeal in this instance as in the former.

Many examples of localities corresponding to each of these descriptions may be found ; and if the reasoning here adopted be correct, it inevitably follows that, in such places, the progressive diffusion of Phrenology shall have been slow, or altogether negative. Of the numerous examples which might be adduced in support and illustration of this conclusion, two only shall be cited.

As an example of the first class of localities, a better illustration cannot be cited than the town of BIRMINGHAM. Every particular enumerated as characteristic of the first description of unfavourable localities is found here exhibited. Essentially a manufacturing town, the faculties called into activity, both in workmen and employers, are the *perceptive* alone. The general character of heads in the place corresponds to this anticipated development ; we speak here from personal observation. There has been no sudden or casual impulse given to the commercial condition of the town, but it has gone on in a course of gradual increase ; the nature of its manufactures being now much the same as it was centuries ago, so far as the physical or mental operations of those engaged in these manufactures are concerned. There is little of stirring enterprise or magnificent speculation in the place. Every change has been gradual, and almost imperceptible. Still further, the civil condition of the place is such that the body of the inhabitants, instead of being divided into the two distinct classes of the enormously wealthy employers and the grovellingly poor employed, stand in a great measure in relations as independent of each other as men trading on their own account on a small independent capital can do. The great body of the inhabitants belong to the class of small master-manufacturers, men whose condition in life is generally comfortable and contented, and who, reaping good and tolerably sure returns for their expended capital and labour, are little desirous of change ; and neither they nor the superior class of master-manufacturers can, without great difficulty, be excited to come forward in any purpose which affects an alteration of their condition. There are exceedingly few inhabitants of the town or neighbourhood who are conspicuously wealthy. The wealth of the town lies in the aggregate, not in individuals ; so that there are not those examples of sudden elevation and successful speculation presented

to the minds of the middle and lower classes which might excite them to strenuous efforts. There is, in short, a kind of very comfortable *apathy* pervading *every class* in the town. This condition bespeaks national and local prosperity (as the term *prosperity* stands explained in the books of modern political economists), and is favourable to the moral character of the inhabitants; * but it is decidedly unfavourable to the diffusion of any subject which, like Phrenology, requires the activity of faculties not generally largely developed within the locality, in order to be understood, and which appeals to that peculiar class of moral sentiments which contemplates with pleasure the beautiful, the new, the elevating, and the improving.

Reasoning then, *a priori*, it might be anticipated that the progress of Phrenology would have been particularly slow in Birmingham. And what is the fact? Mr Watson asks with considerable *naïveté*, "Are there no phrenologists here?" From personal knowledge we can say that there are not *half a dozen* persons in the town who really believe in the science, and *not one* who really understands it in a scientific manner. It is a fact well known to phrenologists, that in scientific men in general, the perceptive organs are more largely developed than the reflective. It cannot therefore be expected that among the *professional* inhabitants of the town the science of Phrenology should have met with a more favourable reception than among the other classes, even supposing the causes stated under the first head of these observations not to be in operation.

The reader may be surprised that these remarks should have been made as to a place which has been so conspicuously distinguished as the scene of certain political struggles. A little consideration, however, will relieve the mind of the phrenologist from every difficulty. He will remember that during these struggles, certain faculties were excited which are always peculiarly liable to excitement within the brains of all men, but especially in the case of those whose *reflectives* are only moderately developed. If he is at all acquainted with the nature of the means employed to attract popular audiences, and particularly the ears of the people of Birmingham during the period alluded to, he will know that the only faculties to which appeal was then made, were those which are classed as purely selfish. No appeal was made to the reflectives. The prejudices and the selfish feelings only were excited. It so happened that in the year 1830, the leaders and excitors of the people belonged to a different political party from that to which the leaders and

* The fact is remarkably confirmatory of this statement. There have been occasions within the last few years when the jail of this town, numbering as it does upwards of 120,000 inhabitants, has been vacant.

exciters of the same body in 1791 belonged ; therefore the results were different in the two cases. The *faculties excited* were similar in each case, but in the one instance integrity and knowledge directed the power thus roused to *good* purposes ; in the other, treachery and bigoted ignorance directed the same power to the most dreadful and disastrous ends. That these exceptions only serve, however, to prove the rule of apathy which has been stated, will be evident from the fact, that the parties were, in each case, mere passive instruments in the hands of others, and that, in each case, no sooner had the temporary excitement ceased, than all sunk again into their former apathetic and indifferent condition, from which many intervening and subsequent attempts to rouse them have been vain. The establishment of mechanics' institutions, which appeal to the reflectives and higher intellectuals, has been attended with less success in Birmingham, than in almost any other spot in the United Kingdom.

Such, then, is an extreme example of the *first* class of unfavourable local circumstances. The same circumstances, in different degrees of force, affect many other places in a similar manner, as will be found upon reference to actual observation.

We shall take as an example of the *second* class, the city of OXFORD.

This city is not, it is true, the seat of manufactures. The occupations of a principal class of its inhabitants, are of a far different character. They partake of all the disadvantages noted to exist in the case of the inhabitants of Birmingham, unrelieved by any single one of the moral advantages which attend the latter case. The occupations of the Oxonians are wholly of a particular character, and that character is most unfortunately contracted, narrow, and confined ;—a character calculated to cramp all the mental energies, to deaden the social and higher moral sentiments, and to excite to activity the selfish feelings, and a few of the least important of the perceptive. To use the words of Lord Bacon, “ the exercise ” which these Oxonians fulfil, “ fitteth not the practice nor the image of life,” but “ doth pervert the motions and faculties of the mind, and not prepare them.” It will need no profound sagacity to predicate, that in this “ seat of learning,” as our universities are sometimes ironically called, Phrenology has met with little favour. What is the fact of the case ? So late as 1830, Spurzheim was not allowed to lecture in the place. So much for the liberality of priestcraft.

Since the object under this head of observation was rather to show the causes of the *local neglect* of Phrenology, than to point out the causes of the local rapidity of its diffusion, the consideration of the latter topic need detain us very briefly.

In such localities as have risen rapidly to a condition of importance; where speculation is carried on to a large extent; where the elevation in the fortunes of many has been great and unexpected; and where, from the peculiar nature of the commercial transactions of the place, all the faculties, reflective as well as perceptive, have been called into energetic activity, the reception and progressive diffusion of Phrenology may be expected to have been favourable and comparatively extensive. Liverpool, Manchester, Glasgow, Leeds, and many other places, afford curious illustrations of the truth of these remarks.

It will of course be found, that many different modifications of the different *sets of circumstances* which have been thus noticed, will exist in many places. Corresponding modifications in the results must be expected; and this, as far as our observation has extended, will be found to be the case. We believe, indeed, that the criterion now laid down will be found universally applicable, and that any apparent contradictions will be readily explicable by reference to some peculiar circumstances. Of course the city of London is an exception to all rules.

We proceed now then briefly, in the *third* place, to consider the modes of ascertaining the *extent of the diffusion* of Phrenology among those classes where that diffusion may be rationally expected.

It is not by ascertaining the number of existing Phrenological Societies, that any just estimate of our number can be formed. Vast numbers of phrenologists have a strong objection to this mode of propagating their science,—whether justly or unjustly founded, is another question. Many who place reliance upon the truth of the science, and have paid considerable attention to its investigation, are neither able nor willing to devote so much time to the subject, or so to mix themselves up, as it were, with a certain set of *opinions*, which are not at present free from obnoxiousness in many quarters, as the membership of a phrenological society would require. The very circumstance of the leading members of these societies being, almost of necessity, medical men, whose duties are numerous and uncertain, is a serious obstacle in the way of the regular conduct of such societies. That these facts are correctly stated, will be evident from the pages of Mr Watson's work; and it is still more so from our own observation and intercourse with the leading phrenologists of various localities. Neither is the expressed opinion of *individual phrenologists* in different localities a much more faithful criterion by which to judge of the progress of the science. Unless we suppose the connection and acquaintance of each one to be widely extensive in each spot, and that each has paid particular attention to the ascertainment of the point, it must be evident how fallible a test must be the

expression of these opinions. We find, accordingly, that the majority of Mr Watson's correspondents speak with a degree of *indefiniteness*, which plainly shows that they are little acquainted with the real extent of the diffusion of the science, even in their own localities.

It appears to us, that a much more accurate idea of the actual state of the case may be derived from the efforts of one individual, placed in favourable circumstances to make his observations.

Let us then suppose an individual accustomed to close and accurate observation; let us suppose that he has a considerable acquaintance with many of the most important and populous districts in the empire; let us suppose that his constant residence is in the central field of observation—London,—that he there mixes extensively in society of all classes, and that his attention is directed to the ascertainment of this particular point of the progressive diffusion of Phrenology. Such an individual appears much more competent to form an accurate opinion upon the subject than can be derived from the mere quotation of phrenological societies, or individual opinions of parties *comparatively* uninterested and unfavourably circumstanced.

It is found that the subject of Phrenology is one which is a frequent topic of conversation among men of science, and in general polite society; this argues that a knowledge of the science is pretty generally diffused; and to cause this diffusion, there must be many who believe in its truth. Now, it was matter of congratulation to observe that, during the late meeting of the *British Association* at Bristol, the subject was very frequently noticed by some of the most eminent scientific savans present; and although it was observed on one occasion, by a nobleman who filled a conspicuous station during that meeting, that "Phrenology has *hardly* taken its place among the sciences yet," it must be obvious, that to anticipate, as that observation plainly does, the speedy approach of the time when Phrenology *will* "take its place among the sciences," is in itself a proof of the extensive estimation in which the merits of the science are generally held.

Again; nothing can, in this money-getting age and nation, be a more convincing proof of the popularity of any particular subject or invention, than the general exposure to sale in the greatest public thoroughfares, of the instrument for acquiring a knowledge of that subject, or that invention. How far, then, will this observation be found to bear upon the present question? Not to mention here the enormous and unprecedented sale of Mr Combe's works upon Phrenology, no one can walk along the streets of the metropolis and not be struck with the number of situations in which *phrenological busts and casts*

are exposed for sale. Is there a bookseller, a modeller, a druggist, who does not conspicuously exhibit these in his shop window? It is truly remarkable that, whilst most other articles of sale are confined to some one or two lines of business, the instruments of *Phrenology* are articles of *universal* sale, and, of consequence, of very general purchase. But a still more convincing proof of the same circumstance is found in the fact that you cannot walk the streets, you cannot turn in to the Bank or Exchange, but you are accosted with the well-known phrase, "Buy immaches," and observe, not the least conspicuous among the said "immaches," the busts and dissections illustrative of *Phrenology*. These are strong facts, and tell vastly more than a host of mere verbally expressed opinions.

Lastly, if it be found that a subject, the very mention of which exposed an individual but a few years ago to ridicule, is now treated with general respect; and the doubts, when expressed, are not those of utter dissent, but merely of hesitation as to "going the whole hog" (as they say in Kentucky) with the phrenologists; the only rational inference which can be drawn is, that the diffusion of a belief in, and a knowledge of, the truths of the science has increased, and is still rapidly and extensively increasing.

We proceed, in the *fourth* place, to examine, how far the diffusion of *Phrenology* has extended.

In making observations in order to arrive at the truth upon this point, it is highly necessary, supposing the principles which have been laid down to be correct, that the observations made under each of the preceding heads should be borne carefully in mind, in order that the inquirer may know among what *classes*, in what *localities*, and under what *circumstances*, he is chiefly to look for this diffusion, and by the pursuit of what method of observation he may arrive at the most accurate results.

Our subsequent remarks upon this subject will, of course, be confined to this country; the progress of the science in other countries might otherwise afford just matter of congratulation. Not the least gratifying circumstance of this kind, is the mode in which the lectures of *M. Broussais* at Paris have been attended. These lectures, just published, contain much interesting and valuable matter. *Mons. Broussais*, on the whole, is remarkably just to the other phrenological author; and although occasionally he claims the merit of discoveries and observations which had been previously made, he falls into this error, apparently from not having read the works which contain them. His remarks on the faculty of *Comparison*, and on the influence of the *physical condition* over the mental manifestations, may be cited as examples. Each of these topics is fully elucidated in Mr Combe's "*System of Phrenology*."

The remarks incidentally made under the preceding head bear closely upon the subject of the present. It has been shewn that, according to evidence of the simplest and most obvious nature, the study of Phrenology is daily increasing rapidly in popularity. But other modes of proof equally convincing, though less immediate, are not wanting. In the course of our observations in many of the most important towns and cities of the empire, observations made either personally or from incidental correspondence—and, because *incidental*, carrying with it the higher degree of weight—we have invariably been gratified to find that the cause is progressing steadily and surely. This progress is very decidedly manifested in many places barely noticed, or even not so much as mentioned, in Mr Watson's work : Bristol, Stafford, Worcester, &c., may be instanced as examples.

But, leaving the numerous instances which might be quoted of the remarkable progress which the science has made in various localities in the *country*, let us confine our attention to the state of the science in the grand seat of observation, the prime centre whence opinions *radiate* as it were to all portions of the empire.

The first observation worthy of mention on this subject is, that, to our personal knowledge, a phrenologist in London was recently *requested*, by the conductor of one of the most popular of the metropolitan newspapers, to supply his paper with a series of letters on Phrenology.

We can state, from similar means of knowledge, that the subject of Phrenology is a frequent and rather favourite topic of conversation in polite society ; and that not a few in the higher classes of society—and therefore carrying some weight in matters of opinion—are believers in, and avowed supporters of, the doctrines of Phrenology. This is important, inasmuch as it affords some security against the ridicule with which the defenders of the science have sometimes been assailed, and tends likewise to render the discussion of the subject fashionable ; a matter of some moment, since discussion is generally found to terminate in a conviction of the truth in the minds of the candid and intelligent.

In the middle classes of society, the familiarity with the language of the science is so great, that expressions of surprise or incredulity on the introduction of the subject are seldom heard. If they are occasionally uttered, it is, as before stated, with respect and temperance, and not with contempt or irony. The expression is frequently heard—"No one thinks of denying the truth of your science altogether." We have been much surprised at the frequency of this and similar expressions. Unless the opposite party to the discussion be one in whom Self-

Esteem is largely developed, and the reflectives very moderate, or unless he be one of those already pointed out as interested parties, you may be sure of a free hearing and impartial discussion of your opinions.

It deserves notice, moreover—to speak now of the diffusion of the science among the humbler classes—that, in several of the institutions for the improvement of the intellectual faculties of the operative classes, there have been lectures on Phrenology delivered and well attended, and arrangements made for the regular discussion of the subject. Moreover, one of the cheap dispensers of periodical literature which has been recently established (the Parthenon), comes forward avowedly under phrenological colours; though we regret to be obliged to add, that the arrangement of those colours is by no means the most judicious, or likely much to benefit the cause.

From the observations thus enumerated, together with many others of equal weight, but to particularize which would be only tedious, we cannot avoid coming to the unhesitating conclusion, that the estimate formed by Mr Watson of the number of believers in Phrenology is far, very far, below the mark. Our observations, which have been made with considerable care, and for the express purpose of arriving at a just conclusion on this point, will bear the test of the most impartial scrutiny, and cannot be charged with having brought us, without sufficient evidence, to hasty or unwarranted conclusions.

We proceed now, in the *fifth* and last place, briefly to consider by what means the diffusion of Phrenology may be still farther promoted in the most efficient manner. And here the remarks made in a former volume of this Journal * as to the inutility and frequently pernicious consequences of *testatory manipulations*, must be repeated. It must be observed, that if the arguments adduced in favour of Phrenology, and the facts recorded in support of those arguments, are incapable of conveying conviction to the mind—or, at least, of exciting the individual to examine for himself into the merits of the question—an exhibition of manipulatory and inferential skill can be productive of little real benefit, and is a somewhat degrading mode of convincing one who has so little candour or love of truth, and whose accession to the cause can be productive of so little benefit, as the previous incredulity or apathy of the party has manifested. There are occasions, it is true, when incidental *illustrations* may, in the course of an argument, be most aptly taken, from the extemporaneous predication of the character of an individual in company. For example, we recently, in the company of some gentlemen whose faith was wavering, but who manifested great *candour* in the discussion, mani

* Vol. ii. p. 130.

pulated the head and predicated the character of one individual present who had previously undergone the same operation from the eyes and fingers of Lord Hallyburton and Mr Deville. The coincidence of each account, without any previous knowledge of the others, was so striking as to induce strong conviction in the minds of the waverers. In another instance, we asked a lady of rank if her daughter (a child of five years of age) had not a remarkable facility in remembering *numbers*. She expressed much surprise at the remark, and stated that, when she rode out to make calls, instead of taking *cards* with the *numbers* of the residences of those upon whom she called—as is usual in London—she took her child with her in the carriage, and, upon the name of any individual being mentioned, the child would instantly remember the *number* of the house. She added, that the child remembered the numbers of the residence of at least *three hundred* ladies. The child had *Locality* large as well as *Number*. Such occasions should never be omitted. The practice to be avoided is, the inference of character merely to gratify the curiosity of incredulous parties, who are ready, if they can find a hole in your report, to ridicule the science.

The most essential requisite to one who would exert himself to propagate Phrenology,—supposing him, of course, to possess a competent knowledge of his subject,—is a considerable endowment of *moral courage*; that is to say, of *Self-Esteem*, *Combative-ness*, *Conscientiousness*, and *Firmness*. He should consider it his duty to let no opportunity pass without introducing and urging, in a temperate but firm manner, the truth and importance of the science. He must remember that this science differs from all others which refer chiefly to some particular *craft*, and are not applicable or useful to mankind in general. Phrenology is the science of human nature. It bestows on him who understands its principles, a knowledge which it is impossible that he should otherwise possess, and which he will find of the utmost advantage and importance to him in every circumstance and situation of life, with respect to the regulation of his conduct both toward himself and toward others. It may be truly said that there is no single subject which Phrenology will not tend to illustrate and elucidate. Let the real friend to the cause, then, lose no possible opportunity of *showing* how the knowledge which Phrenology confers *does* bear upon, illustrate, and elucidate every topic incidentally brought forward. Let him turn every proper occasion of argument or discussion on any subject, into a collateral mode of demonstrating the truth and importance of his science. But let him at the same time always act with good taste and discretion. A disciple who on all occasions thrusts Phrenology down the throats of unwilling

auditors, does it a great injury, and renders himself very disagreeable. Zeal should be regulated by tact, good taste, and sound judgment.

It is to be feared that there are very few phrenologists who do really themselves see and understand the true or full bearings of the subject; who really do justly estimate its importance, or consider it in a philosophical spirit. It is too well known that this is undeniably the case with some of our most eminent *practical* phrenologists. In the mind of the *genuine phrenologist*, hardly an observation can be presented to the senses—hardly a reflection rise—without some benefit being felt to be derived from, and some reference being made to, the principles of his science. How strongly then ought not each to feel the importance to be, of contributing, as far as in him lies, to the diffusion of a means of knowledge so universal and essential.

If it should happen that the expression of his opinions should not at first be treated with that seriousness or deference, of which he feels that they are deserving, let him not be discouraged. He may be assured that if he follows up the first allusion to the science, by constant appeals of the same nature, made with firmness and with temperance, it will be soon perceived by those who might be inclined to smile at his first mention of the subject, that the matter is deserving of more serious consideration. He will, before long, be requested to expound, in sober seriousness, the ground of his belief; and, in the majority of cases, that which was at first scepticism, will terminate in firm conviction. He must be careful, however, not pertinaciously to insist upon pressing his opinions with too much dogmatism or warmth. He must ever let the *suaviter in modo* accompany the *fortiter in re*; but he must let it be clearly seen that he is *in earnest*. His own conduct should in fact be a practical illustration of the admirable influence which a knowledge of the science should have upon the mind and character of every individual.

By the constant and determined pursuit of a course like this, more may actually be done toward the diffusion of a knowledge of, a belief in, and a respect for, the principles of Phrenology, by *one individual* who mixes moderately in general society, than by all the Phrenological Societies in the united empire. It is evident, indeed, that the latter can do little toward the *diffusion* of Phrenology, since the members are all phrenologists. These societies may do much, and be rendered highly valuable, as means of increasing or improving the knowledge of those who are already believers,—by being made the depositories of collections of casts and other illustrations, the private purchase of which would be too expensive to come with-

in the reach of many, but frequent reference to which is absolutely necessary to the practical phrenologist. Measures might be adopted to render the utility of these societies much more extensive than at present. This is an important point, but being one not connected immediately with the subject of the present article, its farther consideration shall be avoided.

It would be well if every phrenologist who possesses the power of clothing his ideas in perspicuous and ready language, would take every opportunity that may fall within his power of volunteering a public *lecture* upon the subject, in the different localities which he may chance to visit. It is highly desirable, however, that none should attempt this course who do not possess a competent,—a thorough knowledge of the subject in all its bearings. Much harm has been and will be done to the cause by the well-meant but ill-advised efforts of different individuals in this way. Those who *do* possess the competent knowledge of the subject, however, cannot do a greater service to the cause—we should rather say to their fellow-creatures—than by exerting themselves thus to promote the diffusion of a knowledge of the principles of Phrenology. Attention is, by these public lectures, attracted to the subject. Demonstration is offered to all with little difficulty, and numbers, who would otherwise have neglected the science as speculative, or as too laborious a matter for investigation, or who would perhaps have remained in utter ignorance of its existence, will be induced to give some attention to the subject. Their curiosity will be excited, and the probability will be that a large proportion will finally leave the lecture-room in a very different state of mind from that in which they first entered it.

Thus it has, we apprehend, been shewn that, while there are some classes and localities which appear unfavourable to the rapid diffusion of Phrenology, the progressive diffusion of that science has yet in general been great, and is becoming daily greater. It has been shewn that the popularity of the science, and the numbers who yield credence to its doctrines, must be very considerably under-estimated in the calculations made by Mr Watson. Finally, it has been shewn how much lies in the power of each individual; how much each true and zealous advocate of Phrenology may effect towards contributing to the diffusion of the science; and in contributing to that diffusion, how each will pursue the most effectual means toward the fulfilment of that object, which should be constantly present to the mind of every philanthropist and every Christian,—the increasing of the means of life and health and happiness and enjoyment to every member of the human race.

J. T. S.

ARTICLE III.

REMARKS ON THE POSSIBILITY OF INCREASING THE DEVELOPMENT OF THE CEREBRAL ORGANS BY ADEQUATE EXERCISE OF THE MENTAL FACULTIES. By ANDREW COMBE, M. D.

A good deal of interest has lately been excited on a question of very great practical importance, and which has too little occupied the attention even of practical phrenologists. It is, Whether, by regulated exercise of a mental power, the cerebral organ by which it is manifested can be increased in size—and, on the other hand, whether, by inaction of any faculty, the magnitude of its organ may be reduced?

On these points a diversity of opinions is entertained. By some it is affirmed that the nutrition and growth of an organ may be promoted or retarded almost at will, in proportion to the degree of exercise of its corresponding faculty. By others it is contended that exercise gives facility and readiness of action in the organ, but does not increase its size. It is, however, only by positive facts that the question can be settled, and I beg therefore to direct the reader's attention to their careful observation and more extensive collection, and to add a few remarks illustrative of the nature and tendency of the inquiry.

It is admitted on all hands, that different parts of the brain arrive at their full growth in succession; that the faculties corresponding to them increase in vigour in proportion as the organs advance; and that, in all cases in which the latter fail to attain an average size, the mind remains to a like degree deficient in power. It is farther agreed upon by physiologists, that in old age, when the mental faculties become impaired, a decrease in the size of the brain, and especially of its anterior lobes, also takes place, and in some instances to so great a degree as to excite surprise. Hence we may safely assume,—*1st*, that the brain grows and decays; and, *2dly*, that its different parts grow and decay unequally as to both time and extent. The next point to be ascertained is, whether exercise alone is in all cases sufficient to excite growth, and whether the same result is obtainable at every period of life?

In youth, when by the great law of nature growth is going on at any rate, in order to complete the development of the body, it is reasonable to suppose that organic increase will be more easily promoted in any given direction, than at a more advanced age when nutrition is already becoming secondary to decay. Such, accordingly, we find to be the case with the

muscular system, variations in the size of which are perfectly obvious to our senses and recognised by all. The probability that the same law applies equally to the rest of the animal structure, and therefore also to the brain, is supported by many direct facts, shewing the closely concomitant progress of mental power and cerebral development. But that *even after maturity*, when growth is no longer so energetic, any given portion of the brain may be rendered larger by assiduous exercise of its faculty, is a proposition which, however reasonable in itself, can be established only by the accumulation of well-observed and indisputable facts.

That growth is easily promoted in *early life* by well-directed exercise, we have ample evidence. We often see the arms, for example, greatly increased in volume by reiterated exercise, while in the same individual the legs, from being left in partial inaction, remain rather under the average bulk. Of this I lately saw a remarkable instance in a young Cambridge student, the muscles of whose arms and chest had, by dint of constant rowing in a boat, become developed in an extraordinary degree, while his lower extremities, from comparative inaction, remained rather slender in form and bulk. In blacksmiths the same contrast is observable and from a similar cause; while in dancing-masters and pedestrians, on the other hand, the legs assume the predominance and the arms remain undeveloped. In like manner; we often see the chest enlarged in youth by indulgence in athletic exercises in the open air giving rise to full and frequent respiration. For the same reason, the larynx and voice may be developed and strengthened by loud recitations, singing, and public speaking, all of which excite increased vascular and nutritive action in the organs chiefly exercised. These facts, then, tend to shew that at least in other structures than the brain, well-directed activity leads to increase of organic development.

The brain, however, offers no exception to the general law; for we find by observation, not only that the mind improves in capacity and vigour by the systematic exercise of its faculties, but that its cerebral organs advance in development in proportion as the mind advances from the weakness of childhood to the vigorous energy of mature age. In the forehead, accordingly, a great change of shape and dimensions frequently occurs during the transition from youth to maturity, and corresponds exactly with the greater depth of reflection which begins at that time to impart to the character the comprehensiveness and solidity of manhood. The general size of the brain, indeed, is increased, and hence the distinction made by hatters in the size of "youths'" and "men's" hats—the latter being considerably larger than the former.

In youth, then, we may hold it as almost, if not altogether, certain, that increase of size in immature organs will generally follow judicious and sustained mental exercise. But as cases occur in which bodily exercise has little effect in augmenting muscular development, so there are also some in which the effects of mental exercise in promoting growth in the cerebral organs are equally unappreciable; on the causes of these *apparent* exceptions I shall afterwards offer a few remarks, and in the mean time pass on to consider the *organic* results of exercise in *mature* age.

The influence of exercise in adding to the development of organs in middle or mature life when nutrition and decay are nearly equal, although decidedly less marked in rapidity and extent than in youth, is nevertheless in many instances still perfectly obvious. In the muscular system, for example, a longer period of regularly recurring exercise is undoubtedly required to increase its development; and the enlargement, when it does occur, rarely proceeds so far as after similar exertion in earlier life. The same rule holds with the chest and lungs. Their capacity is more easily and largely increased in youth than after growth is finished; but still, in the great majority of cases, a very visible increase *may* be obtained by the persevering fulfilment of the required conditions, and of this fact every one must have seen examples in his own experience.

If then (as it is quite logical to presume) the same law presides over nutrition in all parts of the body, the strictest analogy leads us directly to the inference, that even in mature age the size of the individual organs of the brain *may* be increased by adequate exercise of the corresponding faculties, though, as a general rule, not so rapidly, or to the same extent, as at an earlier period of life. It is consequently not absurd, but, on the contrary, perfectly in accordance with the ascertained laws of physiology, to believe that changes to a certain extent, in the proportions of the different cerebral organs, may occur from a continued and marked difference in their opportunities of action. But the fact can be established only by *direct* and undeniable evidence, and hence it becomes a matter of deep interest to the phrenologist to procure, at intervals of a few years, careful and accurate casts of the heads of such individuals as have been subjected to any change of pursuits or circumstances, sufficiently permanent and considerable to have called into play a different order of mental powers from that formerly in activity. If, on comparing such casts, distinct changes in form and proportion are perceptible, a practical result of immense value to the educationist and legislator will be incontrovertibly established; and if, on the other hand, no difference appears, the fact will still be useful in shewing us clearly the limits

by which our power of modifying development and character is bounded, and thus relieve us from aiming at the accomplishment of objects which in the very nature of things may be unattainable.

In the museum of the Phrenological Society very few casts of the description alluded to are to be found, and those which bear upon the point refer chiefly to the period antecedent to mature age. In several living heads I have remarked what, from very attentive inspection, I consider as undeniable increase of size in individual organs, but, casts not having been obtained at the time of the first observation, it is now impossible to substantiate the reality of the change to the satisfaction of others. The presumption of accuracy is strengthened, however, by the concurring statements of several phrenologists, each of whom, unknown to the others, took notice of the alteration. But to that enterprizing phrenologist Mr Deville of London, the honour is especially due of having for several years past devoted great attention, and not more than it deserves, to the question under consideration. By unwearied exertion that gentleman has now collected a considerable number of casts taken from the same individuals at different intervals of time, and, as I am informed, *demonstrating* an extent of change in many of them, of which till lately no adequate conception was entertained; and along with this change there has been in every instance as decided an alteration of the mental character. I am not sufficiently acquainted with the details of Mr Deville's collection to be able to enumerate the individual instances as evidence; but it is said that some of them are of a very striking and conclusive description, and it is much to be wished that an authentic account of them, with lithographic outlines of the heads, and a statement of the circumstances attending the alteration of character, were given to the public. Such an account would be both a guide and a stimulus to other observers, and would form a nucleus for a body of very instructive evidence. I have heard that some of the cases shew that even in advanced age an organ may become enlarged by due exercise, although the probability of such increase is then greatly smaller than in youth. In proof of this Mr Deville shews casts of the forehead of the late Sir William Herschel, who, it is well known, devoted himself to astronomical studies after the age of fifty, and then laid aside that of music, to which he had previously been addicted; and, on comparing the cast taken at the age of fifty-six with one taken some years earlier, a marked increase in the organs required for the mathematician is observable in it, while the organ of Tune has decreased. I have seen these casts, and, if they be really taken from the same head, the great difference in the development cannot be disputed. The celebrated Broussais is an-

other instance of growth of organ from a change of pursuit late in life. He states, that within two or three years, after being much engaged in deep reflection and argumentative study, his organs of Causality became so much enlarged that the difference was perceptible by measurement. In the present number of this Journal, also, a remarkable case of a similar enlargement of the organs of Philoprogenitiveness and Adhesiveness, from long excitement of the corresponding feelings, is communicated by a correspondent: a cast of the head ought if possible to be obtained.

In reference to the possibility of increased development of brain about the time of maturity, I may mention that, in lately looking over a volume of engravings of a series of coins and historical medals struck by Bonaparte to commemorate the chief events of his own extraordinary career, my attention was arrested by the great difference which appears between his earlier and later likenesses in regard to the general size and shape of the head, and especially of the forehead and organs of the reflecting faculties. In the beginning of the series, where he figures only as a general officer, the medals represent the forehead as very full over the eyebrows, in the region of the perceptive organs, but as sloping somewhat in the reflecting region,—presenting almost a contrast to the broad and lofty expanse of brow which we see on all the coins and busts of his later years, and which we are in the habit of considering as so peculiarly distinctive of him. In the early medallions, too, the head runs up to a point at Self-Esteem and Firmness, in a manner different from those of a later date, in which Self-Esteem is represented not as really smaller, but as flanked on each side by a much larger Love of Approbation than formerly, and, consequently, presenting a broad and bulging instead of a pointed appearance. The size of the entire head is also represented as progressively larger as he advances towards full maturity.

It may be said, that these differences of form and size in the head of Bonaparte were not real, but must have proceeded from the artists not having been careful to give the precise configuration which he possessed. If the series of coins and medals had been small, and executed by only one or two artists, the objection would have been not without weight; but seeing that the specimens of which it consists amount to several hundreds, that the series continues through a regular progression of years, and that the outline and features of all the earlier ones, even by different artists, bear a strong general resemblance, while a gradual transition takes place to the remarkable outline and features which characterize all the later specimens, we must admit, either that the head actually changed, and that its varying form was copied accurately from nature; or, that at one time all the

artists followed an ideal model of their own, which they afterwards rejected to put another equally ideal in its place. The latter explanation seems to me so improbable, and the former so much more in accordance, not only with the laws of physiology, but with the changed situation and expanded character of the man, that I cannot but adopt it in preference, and entertain a very strong desire that every effort should be made to determine, by positive evidence, whether such a change actually occurred or not. Perhaps some of the Parisian phrenologists may have the means of ascertaining the fact. If so, I trust that they will not lose sight of the opportunity. Besides the existing cast of the head taken after death (when the size of the brain had in all probability already decreased by the combined effects of inactivity and disease,—for no man ever made so great a change as he did, in passing from the throne and government of Europe to the solitude of St Helena), there are several of the later busts, and one in particular, known to have been modelled with scrupulous accuracy, and with constant reference to the head by measurement. From a comparison of these with the busts and portraits of his youth, a pretty accurate approximation to the truth might be arrived at. But, for this purpose, the examination ought to be conducted with great care, and free from the influence of bias on either side.

In attaching a good deal of weight to this probable difference in the size and configuration of the head of Bonaparte in youth and in maturity, I do not mean to affirm that the busts of either period are *literal* transcripts from nature. In the medals of his early life, we perceive many little varieties in the outline of the nose, mouth, and chin, as well as of the head itself, which do not much affect the general likeness. This shows, that while each artist did not hesitate to make slight deviations to bring the likeness within his own line of classic beauty, all of them still felt themselves tied down to a standard, from which they could not depart far without also departing from the truth of nature. The presumption is therefore very great, that, both in the more sloping head of the early medals, and in the capacious head and magnificent expanse of brow which impart to the later busts so much of the quiet impressiveness of power, the type of the original has been adhered to, although the general dimensions may be somewhat exaggerated.

If, then, it be admitted that increase of size does occur in the cerebral organs, attended by greater vigour of mental function, the question naturally presents itself, Is the observed increase in the organ the antecedent or cause of the enlarged power of mind? or is the active mental excitement the cause of the farther development of the organ? If the former be the case, before we can turn our knowledge practically to account we must discover what the conditions are which stimulate the growth of

the brain ; whereas, if the latter alone be sufficient, it may be turned to excellent account in promoting the farther development, not only of the intellectual powers, but of the moral sentiments, and thus become an instrument for the formation and improvement of character which cannot fail to be productive of most beneficial results.

Experience, however shews, that something more than mere exercise is required to secure the growth of a bodily organ. On tracing the progress of the organization from infancy to its full development in manhood, we cannot account for the different results which follow equal exercise, unless we admit the existence of some original type, principle, or law, inherent in the constitution, by which the future growth of its different parts is regulated, not certainly with fixed or mathematical exactness, but still to an extent which renders it impossible for us to induce a radical change. Thus, in one member of a family, we perceive such a decided tendency to the predominance of the muscular system, that exercise develops all its parts with ease and rapidity, while, in another, the same exercise has scarcely any effect. In a third, again, there is an equal predominance of the nervous system, attended with a corresponding facility of greater development in it by means of *mental* exercise. There is a *something*, in short, in the original type of every individual constitution, which, in some degree, directs the future form and qualities of the organization, and sets a limit to our power of modifying it. Thus, of twenty children brought up in the same school, and under the same treatment, no two will proceed alike in the growth of their several organs. One will be remarkable for an expanded chest and muscular frame ; another for weak muscles, a narrow chest, and large head ; a third will be tall and straight ; and a fourth short and round-shouldered. And this is considered to be quite natural, because their original types or constitutions are different, and it seems to have been a part of the Creator's design that such differences should exist.

Admitting, then, that there is a type or quality inherent in every constitution, which, independently of and prior to exercise, tends to the earlier and more complete development of one part of the system than of another ; and that, therefore, the same kind of cultivation will not produce precisely the same results in all, it follows, that increased activity and capacity of mind must often be, particularly in youth, the consequence and not the cause of a more perfect organization ; and hence, when we observe increasing vigour of mind coincident with enlarging organs, we are by no means justified in at once deciding that mental excitement is always the sole, or even the chief cause of the organic change. In many instances, the aptitude for study which occasionally breaks out unexpectedly, is really the con-

sequence of a naturally advancing organization, although, in its turn, its active indulgence promotes the healthy development of the latter by the due exercise of its peculiar function. If there was not some such impediment to indefinite increase in the organization and extension in the faculty, education ought to be much more successful in imparting talent than it is ever found to be, even under the most favourable combination of circumstances. How often have we to regret that expense and trouble are lavished in vain, in attempting to develop powers of mind and moral feelings which Nature has denied! If exercise sufficed in all cases to procure their endowment, no such disappointments could be experienced.

But while thus directing our attention to the influence of the original type or constitution in facilitating or impeding the future development of the brain, it must be admitted that well-regulated exercise of the mental faculties, is the next most powerful means of promoting the growth of their organs. At first sight this may seem a strange proposition, and yet it is in strict accordance with the best established laws in physiology. It is true, as just shewn, that functional activity is not the only means of promoting organic development, and that its influence is not the same in any two individuals. But when judiciously directed, mental exercise always leads to *some improvement*, both in the working of the faculty and in the condition of its organ; and if it fails to produce its full effect in many instances, this is only because other counteracting causes are at work to diminish its efficiency. In all, the *tendency* is the same, for Nature is ever faithful to her trust; and if we remove the obstacles which obstruct her progress in individual cases, we may rely on our success.

Facts, however, are not wanting to prove, that, even in mature age, a complete change of circumstances, rousing to vigorous and sustained activity a different set of faculties from those previously called into play, has led to a distinctly increased development of cerebral organs, just as we see a change from sedentary to active life add in a marked degree to muscular development. Mr Kirtley's case, in the present Number of this Journal, is one of them, if the fact of the enlargement be admitted. Illness concentrated the attention of a mother upon her children for a length of time, till she began to feel an interest in them never experienced before. This excitement of maternal affection was necessarily accompanied by increased vascular action in the corresponding organs, and this in the end seems to have become so sustained as to lead to permanently increased development.* Mr Deville has observed some other

* See the rationale of this increase explained in "The Principles of Physiology, applied to the Preservation of Health," &c. 5th edit. pages 148 and 302.

cases equally strong, and in one respect much more satisfactory, as he possesses demonstrative evidence of actual change in the form of the head,—casts of them, shewing the difference, having been taken and preserved.

Here, then, is an important fact—that activity, in some instances, increases organic size even in mature age. The next inquiry, and one of not less moment, is to discover, *why the increase does not follow in every instance?* and what are the conditions which favour it? Multitudes of the young, engaged in the same mental exercise, manifest no proportionate increase of power or organ; and yet, if the rule holds good in one instance, there must be causes for every exception, and to these I shall now direct a few remarks, but necessarily of a crude and imperfect kind.

The first impeding cause is one already alluded to. On looking at the analogous instance of muscular increase from muscular action, it will be granted at once that, in some constitutions, there is a much greater susceptibility of change than in others. In the nervous system, the same principle of the influence of the original type undoubtedly holds good, and while some are easily susceptible of mental impressions and cerebral improvement, others are the reverse. Here, then, is one ground of difference of result.

Another fact in regard to muscular development is, that while it is favoured by due exercise, it is prevented alike by insufficient and by excessive action, and that *what constitutes due exercise to one may be insufficient for another, and excessive for a third.* From this follows the acknowledged axiom—That exercise ought to be adapted in kind and degree to the individual constitution, otherwise it will fail to increase either the muscles or the general strength. I have elsewhere* shewn that the same law applies to the brain and nervous system, and that, if we act regardless of its existence, we inevitably fail in successfully attaining our object. From ignorance of physiology, however, on the part of teachers and parents, and ignorance of the connexion subsisting between the brain and the mind, this law has been utterly neglected in practice. In our larger schools, accordingly, we have from 100 to 150 boys in each class, or from 500 to 600 in all, subjected to precisely the same amount of work and to the same general management, in so far as the period of confinement and mental activity are concerned; and the individual powers and wants of each constitution are as little consulted, as if the whole were cast of the same material, and in the same mould—and the result is what we behold and lament. In some, the degree of mental exercise is adapted to their capability, and they improve; in others, it falls

* "Principles of Physiology," &c. 5th edit. p. 292, &c.

much short, and their powers languish from inaction ; while, in a third portion, it goes as far beyond the limit, and their minds and organs are worn out and impaired.

Healthy vigour is another essential to healthy growth, whether of the brain or of the body ; but, from general ignorance of physiology, this has been, and still is, equally disregarded in the treatment of the young. In our public schools the whole pupils of a large class are set to the same task, and undergo precisely the same confinement and absence of wholesome bodily action. It matters not whether they be robust or weak, indolent or vivacious, fond of play or fond of books. It never occurs to us that what may be sport to one is a heavy burden to another ; and that the length of confinement and absence of food which a robust boy can withstand, may seriously injure one of a weaker constitution. It is needless to add, that nothing can be less in accordance with the dictates of a sound physiology than the ordinary arrangements of our schools ; and, judging from the very inadequate results with which so much labour is repaid, and the very indifferent health which attends it, it may be inferred that no discipline can be less in accordance with the laws of nature, or less available as a means of improving the minds and brains of those who are subjected to it. The young, on account of their growing and rapid nutrition, stand doubly in need of a pure and bracing air, and of ample muscular exercise out of doors ; and yet, so entirely is this condition disregarded in our plans of education, that in winter the whole day is spent in the close and corrupted atmosphere of the school, and the exercise is restricted to little more than walking to and from it. It is in vain to think that the brain is not injured in its development, and the mind not weakened in its powers, by this neglect. The brain partakes in the general qualities of the constitution. If the body be imperfectly nourished and supported, the brain is weakened in common with the rest of the system, and the mind is retarded in its progress, and often impaired in vigour, by otherwise inadequate causes.

Another circumstance which tends in youth to impede the vigorous growth of the brain and impair its action, and which owes its existence equally to ignorance of the laws of physiology, is error in diet. No fact can be more certain, or indeed is more generally admitted, than that the young require wholesome nourishing food, in larger quantities and at shorter intervals than when arrived at maturity. Accordingly, undue abstinence is admitted to be very hurtful in early life. And yet, notwithstanding the abstract acknowledgment of the fact, the practice of society is diametrically opposed to it, to the mani-

fold injury of the young. The proper interval which ought to separate breakfast from dinner, because that at which vigorous appetite usually returns in healthy and active young people, is from four to five hours.* Beyond that time, waste goes on without any compensating supply, and exhaustion consequently follows, attended by weariness and a deteriorated state even of the digestive organs. So far are we, however, from conforming to the indications of Nature in this respect, that the prevailing plan is, to make young people breakfast early, say at eight o'clock, that they may go to school in time; and, instead of giving them a good dinner, with an hour or two of relaxation about four or five hours later, their lessons are considered more necessary than food, and while they are pushed on almost without interruption, dinner is postponed till eight or nine hours after breakfast, being at least three, and often five, hours after the time at which it is wanted by nature.

From much observation I am persuaded, not only that the growth and activity of the brain are impaired by this conduct, but that a great deal of the delicacy and bad health of the rising generation, and particularly a great deal of the increasing liability to dyspepsia which pervades society, is owing to the same preposterous departure from the laws of the Creator. It is no apology for the evil to say that it cannot be helped—that there is so much to be learned that the whole day must be given to it. When we become wiser we shall discover that it is easier and pleasanter to learn in accordance with, than in opposition to, Nature's laws; and if we were once convinced of the fact, there would be no difficulty in altering the practice. We all admit that sleep is necessary, and that Nature intended the night for repose; and, consequently, neither parent nor teacher thinks of setting his child to school in the night-time, however anxious he may be for its progress. And, in like manner, let society once be convinced that food at proper intervals is essential to the well-being of the young, and both time and opportunity will be found for giving it.

Another cause of failure in invigorating a faculty and increasing an organ by its active exercise seems to be an inadequate temperament. What is excitement to the faculties and brain of a person of a quick nervous or sanguine temperament, may prove utterly unexciting to the faculties and brain of one with a low apathetic lymphatic temperament; and consequently improvement in the faculty and organ may follow in the former while no change on either will occur in the latter. The susceptibility will thus vary according to the nature of the original constitution; and hence, in attempting to develope any

* See "The Physiology of Digestion considered with Relation to the Principles of Dietetics." 2d edition, p. 198.

mental power, we can expect to be successful only when we are certain that we have really the means of exciting and keeping up its activity. A mere passing stimulus will not suffice to increase nutrition and growth.

Perhaps, also, we sometimes fail from applying a wrong stimulant. In seeking to improve a faculty, common sense dictates that it should be exercised upon its most agreeable and perfect productions. Thus, in cultivating a *taste for music*, we ought to present to the faculty the most beautiful and harmonious music, because that is the best calculated to excite it to agreeable and sustained activity. Accordingly, such is the plan by which we cultivate the taste in communities. But when we take an individual who has naturally no great liking for music, but in whom it is desirable that the talent should be developed, we do not stimulate the faculty to healthful exercise by daily accustoming it to the perception and discrimination of fine sounds, but we set him or her to labour for hours every day in producing sounds remarkable at first only for being so discordant and disagreeable as to make every one keep as far from their source as possible; and thus our aim is defeated, and the taste injured rather than improved. It is true that by stoical perseverance, some arrive ultimately at the power of producing sounds pleasing to their own ears; but it will be found that it is only then that their musical faculty *begins* to be improved, and that its activity is felt to be delightful. Many never arrive at that point, and, after years of ineffectual labour, give up the attempt in despair.

I do not mean by these remarks, that *playing on an instrument* should be taught merely by listening to good music. Playing is a mechanical exercise, calling other faculties into activity, and cannot be acquired without practice. Besides, playing is not music, but only the means by which it is produced; and, so far as regards the music alone, the enjoyment is quite as great *whoever* produces it, as if we ourselves did. Often, however, the mistake is committed, of thinking that we are using the most effectual means to develop a taste for music, when we place the young person at an old piano to rattle out discordant sounds for several hours a-day; and we are grieved and disappointed at the ultimate failure of an experiment which, in the very nature of things, could not possibly succeed. By assiduous practice on an instrument we exercise the *mechanical* faculties, and may thus develop *their* organs to an increased extent. But to produce the same effect on the faculty of Tune, we must stimulate it to sustained activity, by daily accustoming it to the hearing of exquisite music, and by guiding the judgment to the appreciation of beauties. We may then hope to promote increased action and growth in its organ.

I believe that in regard to some of the other faculties we com-

mit a similar mistake, and imagine that education fails to invigorate them and develop their organs, when, in fact, our endeavours have been wrongly directed and could not be successful; but the present paper has run already to so great a length that I must postpone any farther remarks on this part of the subject till another opportunity.

Before taking leave, however, I would again enforce the absolute necessity of physiological knowledge for the successful guidance of teachers and parents. If the size of the cerebral organs admits of being increased by judicious exercise, and impaired or retarded by mismanagement, it obviously becomes an indispensable qualification for those who undertake their right direction to possess an accurate acquaintance with the functions and laws of the animal economy; and it is rather strange that we should have gone on to the present day without such an obvious truth having been universally perceived and acted upon.

Having now shewn, 1st, That judicious mental exercise promotes the development of the cerebral organs in youth; 2dly, That there is strong presumptive evidence in proof of the same effect taking place even in mature age; 3dly, That we are still little acquainted with other important physiological conditions which act powerfully in modifying the results of exercise; and 4thly, That the knowledge of these conditions would greatly extend the efficacy of moral and intellectual education, and multiply our means of advancing the moral welfare and happiness of the race; I do not require to add another word to induce phrenologists to collect additional evidence on all the doubtful points, and to prosecute the inquiry with persevering accuracy, and with a constant view to its important practical advantage.

In a future paper I may touch upon the question, Whether *inaction* of a mental faculty leads to *diminution* in the size of its cerebral organ, and consequently to a permanent change of character. At present neither time nor space will permit me to add more.

ARTICLE IV.

CASE OF CHANGE OF DISPOSITIONS SIMULTANEOUSLY WITH CHANGE IN THE DEVELOPMENT OF CERTAIN ORGANS IN THE BRAIN.

To GEORGE COMBE, Esq.

DEAR SIR,

BARNARD CASTLE, 2d January 1837.

DURING the last few weeks a case of change of character, accompanied by a corresponding change in the form of the head, has occurred within my own practice and observation, which

is strongly illustrative of the views of the writer of Article III. in the last number of the *Phrenological Journal*; and, as this branch of phrenological study deserves the utmost attention, I take the liberty of sending you the particulars of the case to which I allude.

A. B. is a female, who, in her youth and for some years after her marriage, was exceedingly fond of gaiety and dress; she was haughty, and exhibited all the distinguishing marks of active Self-Esteem. Some years ago a decided change took place in her character: this commenced by religious impressions, and since then she has gradually become more and more remarkable for the increasing humility of her disposition, and for manifestations of character directly opposite to her former conduct. She has had seven children, one of which died about six years ago, and other three within the last two years. During the early period of her matrimonial life, she shewed less than the ordinary degree of attachment to her children; but during the period of the above named bereavements, her mind was much exercised over her offspring, and she felt a strongly increasing attachment to them. Her love for her remaining children is at present ardent—she seems to doat upon them with the fondest delight, and her solicitude and affection for them is extreme. She is herself subject to frequent attacks of severe illness; and during these attacks the all-engrossing subject of her thoughts is her children, and she absolutely makes herself unhappy by picturing to her mind the state of helplessness and distress which she fancies must be their lot in the event of her death. On the 3d of last month, I (being the medical attendant of the family) was sent for to consult on a subject which she alleged had been giving her considerable uneasiness. She then related to me that a great change in the form of her head had taken place, which lately had become so apparent, as several times to have attracted the attention of the servant who was in the habit of occasionally dressing her hair. Placing her hand upon the posterior and inferior part of the head, she observed that the large protuberance there had come within the last year or two; and then again, over the posterior and superior part of the head, she observed, "It has fallen away from here." I examined the parts and found the organs of Philoprogenitiveness, Adhesiveness, and Concentrativeness, enormously developed; while over the region of Self-Esteem and Love of Approbation, there was a complete depression, and the tables of the skull there appeared to have receded to a considerable extent. The increasing size of the one part, and depression of the other, had been matter of repeated observation between herself and the servant before mentioned. As serious apprehensions began to be entertained that it was indicative of

disease in the head, I was sent for and consulted upon the case. The only symptom complained of was "a throbbing sensation in the back part of the head *when under any mental excitement*; at any other time no inconvenience or pain was experienced." The lady and her servant are both entirely ignorant on the subject of Phrenology, and at the time of my visit were not even aware that such a science existed.

I make no comment on this case, but if you think the facts mentioned will be of any service in assisting the investigation of the important question to which they refer, you can communicate them to the Journal, or make what other use you please of them: they certainly do appear to prove the accuracy of the sentiments entertained by the writer of the article in the last number of the Journal to which I have before alluded, in which he mentions a class of cases of change in the head, caused by one or two feelings becoming exceedingly active, or subjected to great neglect or suffering. I am, Dear Sir, very truly yours,

MARTIN KIRTLEY.

ARTICLE V.

PHRENOLOGICAL OPINIONS OF JOHN GIBSON LOCKHART, Esq.

ALTHOUGH the Quarterly Review has uniformly sneered at Phrenology, there are good grounds for supposing that Mr Lockhart, its present editor, entertains a somewhat higher opinion of Gall's system, and knows it better, than the exhibitions of the writers in the Quarterly may have led some to imagine. In Peter's Letters to his Kinsfolk, published by Mr Lockhart several years before his editorship began, Phrenology is introduced so frequently, and in language so serious and respectful, that every candid reader will be forced to believe the writer to have regarded this doctrine as both highly important and essentially true. "I saw yesterday, for the first time," says he, in Letter IX., "an original portrait of David Hume; and you, who know my physiognomical and cranioscopical mania, will easily believe that this was a high source of gratification to me. Really you are too severe in your comments on my passion for 'the human head divine.' I wish to God some plain, sensible man, with the true Baconian turn for observation, would set about devoting himself in good earnest to the calm consideration of the skulls and faces which come in his way. In the present stage of the science, there is no occasion that any man should subject himself to the suspicion or reproach of quackery, by

drawing rash conclusions, or laying claims before the time, to the seer-like qualities, which a mature system of cranioscopy, well understood, would undoubtedly confer. All that can be done for a very long time, is, to note down the structure of men's heads in one page of a memorandum-book, and brief outlines of their character, so far as these are known, in another. If fifty rational persons, in different regions of Europe, would keep such books for a few years, and then submit the whole to be inspected by a committee of cool inquirers, there can be no doubt data enough would be found accumulated, either firmly to establish, or fairly, and for ever, to overturn the idea of such a system. Whatever might be the result, I cannot think but that the time devoted to the inquiries would be pleasantly, nay, profitably spent. The person engaged in such a study, I do not at all mean perpetually engaged in it, could not fail to extend his acquaintance with his own species; for he would be furnished with a stronger stimulus than is common, to be quick and keen-sighted in the scrutiny of individuals. I, for my part, have already my skull-book, and I flatter myself its pages, even now, might furnish no uninteresting subject of study. I promise you, I intend to enrich it prodigiously before you have any opportunity of inspecting it."

Mr Lockhart then offers the following interesting remarks on the configuration of Hume's head:—

"The prints of David Hume are, most of them, I believe, taken from the very portrait I have seen; but, of course, the style and effect of the features are much more thoroughly to be understood, when one has an opportunity of observing them expanded in their natural proportions. The face is far from being in any respect a classical one. The forehead is chiefly remarkable for its prominence from the ear, and not so much for its height. This gives him a lowering sort of look forward, expressive of great inquisitiveness into matters of fact, and the consequences to be deduced from them. His eyes are singularly prominent, which, according to the Gallic system, would indicate an extraordinary development of the organ of Language behind them. His nose is too low between the eyes, and not well or boldly formed in any other respect. The lips, although not handsome, have, in their fleshy and massy outlines, abundant marks of habitual reflection and intellectual occupation. The whole has a fine expression of intellectual dignity, candour, and serenity. The want of elevation, however, which I have already noticed, injures very much the effect even of the structure of the lower part of the head. It takes away all idea of the presence of the highest and most god-like elements of which our nature is capable. In the language of the German doctor, it denotes the non-development of the organ of Veneration. It

is to be regretted that he wore powder, for this prevents us from having the advantage of seeing what was the natural style of his hair—or, indeed, of ascertaining the form of any part of his head beyond the forehead. If I mistake not, this physiognomy accords very well with the idea you have formed of David Hume's character. Although he was rather fond of plaguing his theological contemporaries, there was not much of the fanaticism of infidelity about him. His object, in most cases, was to see what the mere power of ratiocination would lead to, and wherever he met with an illogical sequence of propositions, he broke it down without mercy. When he was led into ill-toned and improper feelings, it was chiefly by the intoxication of intellectual power, for there seems to have been much humanity and graciousness in his disposition."

Of Jeffrey's forehead, Mr Lockhart says, in Letter VI., that "it is very singularly shaped, describing in its bend from side to side a larger segment of a circle than is at all common"—a circumstance indicative of a great development of Eventuality and Comparison. Henry Cockburn's head is thus described in Letter XXXIV.:—"Full of the lines of discernment and acumen immediately above the eyebrows, and over these again of the marks of imagination and wit, his skull rises highest of all in the region of veneration; and this structure, I apprehend, coincides exactly as it should do with the peculiarities of his mind and temperament." Of Professor Playfair "the forehead is very finely developed—singularly broad across the temples, as, according to Spurzheim, all mathematical foreheads must be; but the beauty in that quarter is rather of an *ad clerum* character, or, as Pindar hath it,

— πρὸς τὸ πᾶν
'Εμμενὴν χάριν.

I, however, who really, in good earnest, begin to believe a little of the system, could not help remarking this circumstance; and more particularly so, because I found Mr L——'s* skull to possess many of the same features—above all, that of the breadth between the temples." (Letter VII.)

But it is on the heads of Sir Walter Scott and other contemporary poets that Mr Lockhart's remarks are most interesting.

"In the general form (of Sir Walter's head) so very high and conical, and, above all, in the manner in which the forehead goes into the top of the head, there is something which at once tells you that here is the lofty enthusiasm, and passionate veneration for greatness, which must enter into the composition of every illustrious poet. In these respects, S—— bears some resemblance to the busts of Shakspeare, but a much more close resemblance to those of the great Corneille; and surely Corneille was one

* Professor Leslie is here meant.

of the most favoured of all poets, in regard to all that constitutes the true poetic soarings of conception. No minor poet ever approaches to this conformation ; it is reserved for ' Earth's giant sons' alone. It is lower down, however, that the most peculiar parts of the organization are to be found—or rather those parts, the position of which close beneath these symbols of high poetical impetus gives to the whole head its peculiar and characteristic expression. The development of the organ of imitation is prodigious, and the contiguous organ of pleasantry is scarcely less remarkable. This again leads off the swell into that of imagination, on which the upper region rests, as on a firm and capacious basis. I do not think the head is so long from stem to stern as Lord Byron's, which probably indicates some inferiority in point of profound feeling. Like Lord Byron's, however, the head is in general well brought out in every quarter, and there is a freedom in the air with which it sits upon his shoulders, which shews that Nature is strong in all the different regions—or, in other words, that a natural balance subsists among the various parts of his organization. I have noticed, on the other hand, that people whose strength lies chiefly in one direction, have, for the most part, a stiff and constrained way of holding their heads. Wordsworth, for instance, has the back part of his head—the seat of the personal feelings—small and little expanded, and the consequence is, that there is nothing to weigh against the prodigious mass of mere musing in front, so that his head falls forward in any thing but a graceful way ; while, on the other hand, the deficiency of grave enthusiasm allows the self-love in the hinder parts of Mr Jeffrey's head to push forward his chin in a style that produces a puny sort of effect. Tom Moore has no want of enthusiasm, but it is not quite placed as it should be—or, at least, with him also the sinciput predominates in an irresistible degree. Now Scott and Byron are distinguished from all these by a fine secure swing of the head, as if they were prepared at all points. Lord Byron's head, however, is, I think, still more complete all throughout, than that of Mr Scott. The forehead is defective in much that Scott's possesses, but it is very fine upwards, and the top of the head is wonderfully capacious. The back part, in both of their heads, is manly and gallant-looking. Had they not been lame (by the way, what a singular coincidence that is !) I have no doubt that they would both have been soldiers—and the world would have wanted Marmion and the Corsair. Lord Byron's head is, without doubt, the finest in our time—I think it is better, on the whole, than either Napoleon's, or Goethe's, or Canova's, or Wordsworth's. The chin, lips, and neck are beautiful—in the most noble style of antique beauty,—and the nose is not unworthy of keeping them in company—and yet

that of Wordsworth is more perpendicular, and belongs still more strictly to the same class which the ancients—having exaggerated it into the ideal—attributed to Jupiter. It is better shaped in the ridge than any nose of modern times I have seen ; it comes down so straight from the forehead, that the eyes are thrown quite back into the head, as in the loftiest antique. Coleridge has a grand head, but very ill balanced, and the features of the face are coarse—although, to be sure, nothing can surpass the depth of meaning in his eyes, and the unutterable dreamy luxury in his lips. Thomas Campbell, again, has a poor skull upwards, compared with what one might have looked for in him ; but the lower part of the forehead is exquisite, and the features are extremely good, though tiny. They seem to me to be indicative of a most morbid degree of sensibility—the lips, in particular, are uncommonly delicate, and the eyes are wonderfully expressive of poetical habits of feeling. His brow speaks him to be born with a turn of composition truly lyrical, and perhaps he should not have cared to aim at other things. An uncommon perception of sweetness and refinement sits upon the whole of his physiognomy, but his face, like his mind, seems also to glow ever and anon with the greater fires of patriotism and public glory. He should have been a patriotic lyrical poet, and his lays would not have failed to be sung—

“ ‘Mid the festal city’s blaze,
When the wine-cup shines in light.”

Indeed, why do I say he *should* have been ? he *has* been ; and *Hohenlinden*, and *Ye Mariners of England*, and *The Battle of the Baltic*, will never be forgotten as long as the British Jack is hoisted by the hands of freemen. I have already said something about the head of the author of the *Isle of Palms*, and that of the *Ettrick Shepherd*. They are both fine in their several ways. That of Wilson is full of the marks of genuine enthusiasm, and lower down of intense perception and love of localities—which last feature, by the way, may perhaps account for his wild delight in rambling. I have heard that in his early youth, he proposed to go out to Africa, in quest of the Joliba, and was dissuaded only by the representations made to him on the subject of his remarkably fair and florid complexion—but I believe he has since walked over every hill and valley in the three kingdoms—having angling and versifying, no doubt, for his usual occupations, but finding room every now and then, by way of interlude, for astonishing the fairs and wakes all over these islands, by his miraculous feats in leaping, wrestling, and single-stick.” (Letter LIV.)

Mr Lockhart has some discussion about the name by which the phrenological doctrine may be most appropriately designated. “The very names which have been bestowed upon the science

—*Cranioscopy* and *Craniology*—to say nothing of the still coarser *Schädellehre* (or skull-doctrine) of its first doctor and professor, are disagreeable terms, on account of their too direct and distinct reference to the bones." "It is much to be wished notwithstanding, that some name could be found for this admirable science, which would give less offence even to those who are rather disposed than otherwise to give it its fair chance of thriving in the world. I have been thinking a great while on this subject, and have balanced in my own mind the merits of more *oscopies* and *ologies*, than I care to trouble you with repeating. *Craniology* itself, over and above the general and natural prejudice I have already talked of, labours under a secondary, an adventitious, and a merely vulgar prejudice, derived from the ignorant and blundering jokes which have been connected with it by the writers of Reviews and Magazines. It is wonderful how long such trifling things retain their influence; but I would hope this noble science is not to be utterly hanged (like a dog) because an ill name has been given to it. Sometimes, after the essence of a man's opinion has been proved to be false and absurd, even to his own satisfaction, it is necessary, before he can be quite persuaded to give it up, that we should allow a few words to be sacrificed. These are the scape-goats which are tossed relentlessly over the rock, after they are supposed to be sufficiently imbued and burthened with the sins of the blundering intellect that dictated them. And such, I doubt not, will, in the issue, be the fortune of poor, derided, despised, but innocent, although certainly somewhat rude and intractable *Craniology*.—*Cranioscopy* (particularly since Dr Roget has undertaken to blacken its reputation in the Supplement to the *Encyclopædia Britannica*), may be pretty sure of sharing the same melancholy fate. There is no doubt that Jack and Gill must tumble down the hill in company. Anthropology pleased me very much for a few days; but it is certainly too vague. It does not sit close enough, to shew the true shape and character of that which it would clothe. Cephalology and Cephaloscopy would sound uncouth, and neither of them would much improve the original bargain with which we are quarrelling. Organology shares in something of the same defect with Anthropology. In short, as yet I have not been able to hit on any thing which exactly pleases on reflection. Although a worse cranioscopist, you are a better linguist than I am; so I beg you to try your hand at the coining of a phrase. A comparatively unconcerned person may perhaps be more fortunate than a zealous lover like myself; for it is not in one respect only that women are like words. In the mean time, when it is necessary to mention any person's brain, it may be best to call it his Organization. It is perhaps impossible altogether to avoid em.

ploying expressions of an anatomical cast; but the more these can be avoided, the better chance there will most assuredly be of rendering the science popular." (Letter XXIII.) The name *Phrenology* was first employed by Mr Thomas Forster, in his Sketch of the Phrenology of Gall and Spurzheim, published at London in 1816.

We conclude by quoting from the same letter Mr Lockhart's observations on the busts of ancient Greece: "You will smile perhaps when you hear me talk in so satisfied a tone about the craniological skill of the Greeks; and yet there is nothing of which I am more thoroughly convinced, than that they did, practically at least, understand infinitely more of the science than any of the disciples of Gall and Spurzheim are likely to rival even a century hence. There is one circumstance,—a small one, you will say,—which suggested itself to me yesterday, for the first time, when I was sitting after dinner, in a room where several large plaster-of-Paris busts were placed on the extremities of a side-board. What is called *grace*, is chiefly to be found in those movements which result from organs on the top of the head. In women, there is more of it than in men, because their animal faculties are smaller. Now, in all paintings of Madonnas, particularly of the *Matres Amabiles*, the attitude evidently results from the faculties in the region above the forehead. The chin is drawn in, and the upper fore-part of the head leans forward. This is not done with a view to represent modesty and humility alone; which, by suspending the action of pride and self-love in the back part of the head, take away what kept it upright. The attitude of humility, therefore, results from a negative cause. But the Madonnas have often a look quite dignified and assured, of unquestioning adorable divine serenity; and the leaning forward of the brow in them, is accompanied with an air which denotes the activity of a positive cause—namely, the principle of love in the upper parts of the forehead. This was suggested to me, however, not by a picture of the Madonna, but by a Grecian bust—and I think you will scarcely suspect which this was. It was one, of which the whole character is, I apprehend, mistaken in modern times—one which is looked at by fine ladies with a shudder—and by fine gentlemen with a sneer. Artists alone study and love it—their eyes are too much trained to permit of any thing else. But even they seem to me entirely to overlook the true *character* of that, which, with a view to quite different qualities, they frequently admire. In the Hercules Farnese (for this is the bust), no person who looks on the form and attitude with a truly scientific eye, can possibly believe that he sees only the image of brute strength. There are few heads, on the contrary, more human in their expression—more eloquent with the manly virtue of a mild and generous hero. And

how indeed could a Grecian sculptor have dared to represent the glorious Alcides in any other way? How do the poets represent him?—As the image of divine strength and confidence, struggling with and vanquishing the evils of humanity—as the emanation of divine benevolence, careless of all but doing good—purifying the earth from the foulness of polluting monsters—avenging the cause of the just and the unfortunate—plunging into Hell in order to restore to an inconsolable husband the pale face of his wife, who had died a sacrifice to save him—himself at last expiring on the hoary summit of Athos, amidst the blaze of a funeral pile which had been built indeed with his own hands, but which he had been compelled to ascend by the malignant cruelty of a disappointed savage. The being who was hallowed with all these high attributes in the strains of Sophocles, Euripides, and Pindar—would any sculptor have dared to select Him for the object in which to embody his ideas of the mere animal power of man—the exuberance of corporeal strength? So far from this, the Hercules has not only one of the most intellectual heads that are to be found among the monuments of Greek sculpture, but also one of the most graceful. With the majesty which he inherits from the embrace of Jupiter, there is mingled a mild and tender expression of gentleness, which tells that he has also his share in the blood, and in the miseries, of our own lower nature. The stooping reflective attitude may be that of a hero weary with combat, but is one that speaks as if his combating had been in a noble cause—as if high thoughts had nerved his arm more than the mere exultations of corporeal vigour. His head is bent from the same quarter as that of the Madonnas, and whoever takes the trouble to examine it, will find, that in this particular point is to be found the chief expansion and prominence of his organization.”

These observations, in which, mixed with some error, there is much sound Phrenology, proving that the subject had been studied, appear to us to have been made in all sincerity and earnestness. They were published in the year 1819, and nature has not altered since. We ask Mr Lockhart, therefore, supposing these remarks to have been made by him in good faith, whether he has found facts in nature in opposition to them since that time? If so, why has he not published them? If he has not found contrary instances, why has he employed his editorial authority in casting ridicule on Phrenology in the *Quarterly Review*, and obstructing its progress by misrepresentation?

ARTICLE VI.

SOME REASONS FOR CONCLUDING THAT THE FACULTY
HITHERTO NAMED *TUNE*, WOULD BE MORE PHILO-
SOPHICALLY DENOMINATED THE FACULTY OF *SOUND*.*

ONLY inferior to the happiness of ascertaining a primitive faculty of mind, by demonstrating a special portion of the brain to be its instrument, is the privilege of throwing farther light, whether in the way of extension or limitation, on the *function* of a faculty already partially ascertained. There is much to be done in this department of Phrenology. In the degree of our knowledge of the functions of the faculties, there is an obvious difference. We feel assured that we have got at the radical functions of some of the faculties; we have obtained a *base* of such depth and breadth as to sustain a variety of qualities or manifestations, but all related essentially to that base; while in others we have as yet only arrived at a few qualities or manifestations unquestionably related to the organ, but too narrow and specific to form the comprehensive and radical function of the faculty.

Fortunately for the pneumatology of the science, a great majority of the phrenological faculties do rest on sufficiently broad functional bases. However manifested, we can trace the base of Amativeness, for example, of Self-esteem, of Benevolence, and I am inclined to say, though diffidently, of all the faculties—animal, moral, and intellectual—with the following exceptions, in which I believe it is agreed we have not arrived at the root:—Inhabitiveness and Concentrativeness, Constructiveness, Destructiveness, Size, Order, Tune, Wit, Comparison, and Causality. These it is desiderated to trace to their bases; the others, of which the bases are obvious, ought to be treated conversely, and followed out to their various modifications. One test of our not having arrived at the functional root of a faculty, is dissatisfaction with the name which ought to designate the radical power. We are dissatisfied with the name *Destructiveness*, for example, as expressing a manifestation not radical to the faculty.† Perhaps there is no word in the language for

* We are indebted to Mr Simpson for this paper, which offers to phrenologists a new speculation. We are not yet quite prepared to take a side in the argument, but consider Mr S.'s views well worthy of phrenological discussion.—*Editor*.

† Some have thought that the radical idea of Destructiveness is that of something opposed to Constructiveness; and bearing relation to analysis, or reduction to elements. This, however, does not satisfactorily include irascibility and resentment, justly imputed to this faculty.

this feeling in its fundamental essence; or, more likely, we have not yet got a clear idea what that essence is. It is certain, however, that a propensity to destroy will not explain all its manifestations. That word expresses too high an activity of the propensity, although it is no doubt itself a mitigation of the original denomination, a propensity to *kill*; but it requires yet greater reduction to entitle it to the character of a functional root. If we had space, we think we could shew that the like uncertainty of base characterizes the other faculties above enumerated; and that these hold out so many problems for phrenologists to solve. Indeed the Metaphysics of Phrenology is in its infancy, and requires yet more deliberate comparison with nature, and even with the doctrines of the schools, than it has perhaps hitherto received.

In the following remarks we shall make a humble attempt to find a fitting base for the faculty called Tune.

It is easy to see whence the tendency to *overname* arose. Extreme development of distinct portions of the brain was looked for; and as the specific manifestation connected with extreme development was naturally noted, that manifestation, as in the instance of the impulse to kill, was not always the radical function. This seems to be true of Tune. A certain organization observed in Haydn, Mozart, and other highly gifted musicians, and generally, though in different degrees, in persons possessing a talent for Music, had its name from that quality. The error would have been of the same kind, had the organ of Colouring been called the organ of Painting, from being found in extreme development in Titian, Rubens, Vandyke, and Claude. In consequence of the error now described having given a name to the faculty of Tune, there is no part of the organology which has more perplexed phrenologists; and which has with more avidity been seized upon by their opponents, as a weak point in the system, and a source of anomalies not always easily explained. Mr Scott brought a great defensive force to this breach, by demonstrating that although Tune alone is sufficient to *feel and enjoy*, several other faculties must act in combination with Tune to *produce*, music, either instrumental or vocal. But as he still held Tune, or perception of musical combinations, to be the fundamental function of the faculty, he left another class of difficulties unre-moved. Let us then try to discover some more elementary function which may be concluded to be a base not only for musical endowment, but for manifestation of a more radical and necessary character.

We may assure ourselves that we are inquiring in the right direction, when we look for a function which the whole human race shall be found in some degree to manifest—in conformity

with the phrenological doctrine, that every faculty, in a greater or less endowment, is part of the constitution of every sane individual. The faculty sometimes called Weight, was lately investigated in this retrogressive way.* The faculty of Tune, every phrenologist knows, has hitherto been treated of solely as the perception and enjoyment of musical relations and combinations. It has been so treated in the writings of Gall, Spurzheim, Mackenzie, Combe, and Scott; so that the present inquiry has not, so far as we know, been anticipated. We maintain that the perception of musical relations cannot be *per se* a primitive faculty, inasmuch as every primitive faculty must in some degree appear in every sane human being; yet of musical perception there are vast multitudes in whom there is not a trace. As, on the other hand, it is found in many, it seems to follow as a phrenological consequence, that it must be a higher degree of a faculty of a more elementary kind which shall be found in the whole race. The root will of course be the lowest degree of manifestation—a power *necessary* to man. What then is that humbler endowment of which musical perception is a higher? With due diffidence we venture to propound the thesis, that SOUND is the radical and therefore universal perception of this faculty; and that for the following reasons.

First, There must be a faculty for the perception of sound, because sound is the result of a quality or condition of matter; and each of the elementary conditions or qualities of matter is related to a faculty in man. Sonorousness is one of those qualities of matter called secondary by the metaphysicians, which differ from primary qualities, such as form, size, and colour, inasmuch as matter cannot be conceived, by the mind, disjoined from these qualities, but may be conceived without being connected with sonorousness. This merely metaphysical distinction, however, is of no consequence in our present inquiry, seeing that sonorousness is a quality of matter *really* as inseparable from it as form, size, or colour, however we may, by an effort, conceive a disjunction; and a quality to be *perceived*, must be the object of a percipient faculty. What is the sound, or sonorousness, of a material body? Writers on acoustics are agreed, on the most unequivocal experiments, that it is the body's power, when itself impelled, of impelling the air by the vibratory motion of its particles; the undulations of the air impinging on the apparatus of the ear, and proceeding by the auditory nerve to the brain, where they are perceived by a faculty of the mind. The vibrations, and their inseparable motions, can be seen on the surface of the water in a glass, on

* See vol. ii. p. 297, 412, 645; iii. 211, 451; iv. 266, 314; v. 222; vi. 134, 343; vii. 106; ix. 142, 624, and (embracing the whole discussion) 193.

the rim of which we create sound with a moistened finger ; or in the motions and figures called acoustic figures, in powder agitated by a sonorous body.* It is also well known, that the sounds occasioned by different bodies vary according to their density, tension, &c. ; in other words, according to the disposition of their component particles. Infinite are the sounds which are produced in nature. Metals, as most elastic, are the most sonorous bodies known, and accordingly bells are metallic ; but each metal, when struck, has its own peculiar sound. Different woods have different sounds. Even soft bodies cannot be struck without producing sound. Some of these in a state of tension, as cords, paper, parchment on the drum, are very sonorous ; nay even water and air are sonorous ; air confined in a tube, as in the case of a wind instrument, is itself a part of the sonorous body. This sound-producing quality in matter, is so much expected, that it is appealed to as one of the modes of the identification of various kinds of matter. The form, size, and colour of a crown-piece or sovereign, are all three often distrusted till the metal is rung upon the table, the best test perhaps of the four.

As the result of a quality or condition of matter, Sound has the channel of a sense fitted to convey it, by a nerve for the purpose, to the brain ; just as the quality of colour addresses itself first to the eye and the optic nerve, before it is perceived by the mind.

Secondly, The perception of sound is manifestly the function of a *knowing* faculty, as much as the perceptions of form, size, and colour ; and as such ought like them to have an organ in the anterior lobe of the brain. An organ for perceiving the relations of sounds, or music, has been established to exist in the anterior lobe of the brain ; but if the simple perception of sound, and the mere power of *discriminating* one sound from another be a faculty differing in kind from that which perceives melody and harmony, it must have a distinct organ, and that, by analogy with Form, Size, and Colour, in the anterior lobe. Yet it may safely be predicated, that in that lobe there is no portion of brain, possessing the well-known characteristics of an organ, which, after the scrutiny of forty years on thousands of the human race, has been even suspected to have the slightest connection with sound, save that hitherto called the organ of Tune. But it is something—it is much in this argument, that it is sound and its combinations, these combinations being but sounds after all, which that faculty called Tune perceives.

* Savart, Chladin, and Wheatstone, have published some curious experiments on acoustic figures. The last mentioned produced them by means of small bright beads on the top of vibrating wires. Mr Wheatstone was some time Secretary of the London Phrenological Society, and is now Professor of Experimental Physics, King's College, London.

Thirdly, The perception of sound, though in various degrees of *discriminating* power, is given to the whole human race, who have the external inlet or sense of sound, and the brain, free from disease. Some degree of power to discriminate sounds, is as necessary to man, as to perceive forms, sizes, and colours. Safety as well as comfort depends on it. A large class of our warnings of danger come to us in the way of alarming sounds. Most dangerous physical and mechanical motions premonish us, to keep our bodies out of the way of their power, by loud and threatening sounds; the volcano, for example, the cataract, the hurricane, and, as the work of man, ordnance, and power-machinery. How many of our feelings are approached by cries. Witness the effect of the infant's cry upon its mother, who cannot mistake any other sound for it, and is constrained by it to approach as quickly, as by the lion's roar or tiger's growl she would be warned to fly. Now, where is the healthy human being who does not possess power of discrimination in sounds to this most necessary amount, however deficient in musical perceptions? There are many who, on hearing a sound, can go farther, and say, without the aid of either sight or touch, "That is the voice of such-a-one, that is an infant's cry, a boy's voice, a lad's, a man's, a woman's; a horse's neigh, a cow's low, a sparrow's chirp, a cock's crow; that is the pattering of falling rain, the sound of a bell, a drum, money, paper, silk, leather, clapping the hands, a whisper, a horn, a flute, a stringed instrument, a carriage on the pavement." Nay, each sound has a name, as neighing, lowing, chirping, crowing, ringing, rustling, creaking, twanging, &c. It would be interesting to observe *very* minutely a case of extreme deficiency of the organ called Tune, such as appears in Ann Ormerod, in the blind school at Liverpool; and, by experiments with different sounds, to note if there be also a defect in power of discrimination. We recommend to our friends of the Liverpool Phrenological Society to put this to the test; and we shall be grateful for a communication of the results. To a certain extent, even Ann Ormerod must perceive and discriminate sounds.

Fourthly, There is a power possessed not by all but by a portion of mankind, which perceives the minutest differences in sounds, and in their musical relations. These relations we know exist, and are reduced to rule with mathematical precision. Now, as already said, it is contrary to sound phrenological doctrine to hold that this high power is the *exclusive* function of a faculty, when we see that it is entirely wanting in a very great number of human beings.

Fifthly, The perception and discrimination of sounds in general, and of musical relations in particular, are powers differing in *degree*, and not in kind. This will be granted, we should

think, if it can be made out that ALL sounds are essentially musical sounds; for if it can be shewn that the objects perceived, although supposed different, are essentially the same, then it seems to follow that one percipient faculty is enough for both. It is a truism that music is made up of sounds, but it is a fallacy to hold that one sound, *per se*, is musical, and another not. There are infinite varieties, no doubt, in the agreeableness of sounds to our perceptions; but there is no sound, however harsh, which does not hold an ascertainable relation to other sounds, and has not its precise place in a series. This truth is not a novelty; it has been observed and acknowledged by philosophers before Phrenology was heard of. Mr Alison, in his work on Taste, has very clearly illustrated it.* He holds that it is a vulgar error to consider the sounds produced by the human voice in singing, or by a musical instrument, to differ in kind from sounds produced by any impulse whatever, and to denominate the former musical and the latter unmusical sounds. All sounds are produced in the same way, namely by the vibratory motion of the particles of matter acting on the air, and by that medium conveyed to the ear; and it makes no difference whether the vibrating instrument be the *trachea* of Catalani, the flute of Nicolson, the catgut of Paganini, or a copper kettle or empty barrel;—nay, to use Mr Alison's example, the grinding of the teeth of a saw. We chanced, some time ago, on board a steam-packet, to witness an experimental illustration of the truth that any sound will be found to be musical, and take its place in musical combinations. In the sleeping saloon, one gentleman, not yet up, occasioned some mirth by a loud, high-toned, and long-continued, snore. After many remarks upon the *musical* qualities of so fine a specimen of the trumpet of Morpheus, a gentleman present, with great gravity, took from its case a guitar or mandolin, and upon its strings twanged the snore with the most perfect and diverting exactness. When we laughed with the rest at so whimsical an experiment, we very little imagined that we were treasuring an important scientific fact, to serve as a satisfactory illustration of a new theory. In like manner, there does not appear to us any distinction in kind, but merely in degree of variation of pitch, between singing and speaking. Without a rigid monotony, with which no human being speaks, there are inflections of voice, which, in however low a degree, form tune; so that the different accents of the inhabitants of different provinces of the same country, all of whom pronounce the same words, are nothing more than their different *tunes*. It is not

* Mr Slate gave a very satisfactory exposition of the same doctrine, in an Essay on Natural Language, read some years ago to the Phrenological Society in Edinburgh.

from the mode in which they pronounce or articulate the words, so much as from the mode in which they respectively intonate, or literally *sing*, them, that we distinguish from each other, the natives of London, Edinburgh, Aberdeen, and Dublin. There are marked gradations of intonation even among individuals of the same province. Some speak with so little inflection as almost to repeat the same note in every syllable; while others, in different degrees, use a variety of notes in every member of a sentence, sometimes with so much tone as to approach much more nearly to what in common speech is called singing. Every one has heard the varied intonation of an over-excited preacher. His musical delivery has given the name of cant, or song, to the expression of excessive religious feelings. We should never doubt full scope for the *guitar* in such a case; while the imitator would have still less difficulty in striking an unvarying note in unison with an inveterate youthful monotonist, who staccatos his lesson at school. He has only to vary his experiments, either with his guitar or his voice, and he will find that there is no sound in nature, be its material production what it may, to which he may not strike a musical unison, which unison must form part of a musical series. A friend has expressed a doubt of the universality of the predicate that all sounds are elementary musical sounds, and has instanced *whispering* as an exception. This objection led us to reflect upon what a whisper really is, which we should not otherwise have thought of doing, and we are satisfied that a whisper forms no exception. A whisper is the sound of a column of air expelled from the lungs so slightly, as not to vibrate in the tube of the trachea to the extent of producing open voice. In teaching the deaf and dumb to produce a clear vocal sound, the teacher places the pupil's hand on the outside of his, the teacher's, throat, where he feels the marked vibration of a cry; the pupil's hand is then put to his own throat, which he soon brings to vibrate in the same manner, producing thereby, although unknown to himself, a vocal sound or cry. But let any one speak or cry in a whisper, and the hand applied to the throat will not feel a vibration. The breath is passed too softly through the wind-pipe to produce that effect. Nevertheless, a sound is produced by a whisper, capable of being imitated as it is heard, and likewise varied by opening the lips in various degrees. This very capacity of variation is conclusive. The same thing can be done with that imitation of the wind-pipe called a flute. It may be breathed into so softly as to produce whispering sounds only. Now, these whispering sounds are musical; for every little fifer knows that he can play *whisperingwise* any air which he can also give forth in piercing shrillness to the drum. There is no difference in that very common pheno-

menon called whistling, which, by means of the lips, merely modulates the air passed by the trachea; the lips producing the variations of the notes by varying the aperture. A whistling boy, who is ordered to be silent, will often continue to whistle in a whisper. He can perform the whole air as perceptibly in the one way as in the other. The music may not be so good, but there are many different degrees of attraction in music, and it is enough for our purpose, that whispered notes *are* capable of variety of intonation, to make out that each is a musical sound, forming part of a musical series.

Sixthly, We found a strong reason for our thesis on the analogy between *Sound* and *Colour*. With regard to *Colour*, it is not disputed that the same faculty perceives simple colours and paints the finest pictures; that it exhibits a gradation from the simplest perception and discrimination in ordinary life, up to that exquisite endowment which we denominate a talent, the manifestation of which in painting appears to differ as essentially in kind from the mere power of distinguishing a white man from a negro, as the talent which produced the Frieschutz differs from the power of distinguishing the striking of a clock from the mewing of a cat. But as the greatest painter still deals with colours as the elements of his higher function, which function is only the expression of a more exquisite perception of these elements and their relations; so the musical composer, however exquisite the combinations in succession of his melodies, and complicated the rich symphonious accordances of his harmonies, is yet only dealing with *sounds* as his elementary perceptions; and is only manifesting, in expression, a higher and more exquisite endowment of the same faculty, without which man would be in imperfect relation to external nature. When discussing this analogy with an ingenious friend, it was granted to us, that it would be complete if *light* were substituted for colour, for that light is to the eye what sound is to the ear; but that colour is something more than light, and therefore cannot be viewed in analogy with sound. He thought the whole question turned here unfavourably for our theory. Now, if it can be demonstrated that light and colour are either identical or inseparable,—so inseparable, that, whatever light in its essence may be, colour is its invariable condition, and more, its *only visible* condition, then will our friend's difficulty be removed, and the analogy between colour and sound restored. It is trite science that light, if not colour, is coloured. The Newtonian experiment, which analysed a single ray called *white* light into the seven prismatic colours of the spectrum, is considered conclusive by all writers on chromatics. The converse experiment, which can be tried with a spinning-top, is equally satisfactory,—the seven prismatic colours are again blended

into white by very rapid rotation. Solar light is philosophically called *white*, and this white colour is what we see when we look at the sun, or at the light produced by, or accompanying, heat. We speak of a *white* heat, and find the whitest flame always the lightest,—from oil-gas to Mr Drummond's oxi-hydrogen blaze, and from that to the sun. What do we see in daylight when looking at any thing else than the sun? It is then an obvious fallacy to say we see light. We may as well say we see the air. We see objects clearly in their different colours, but nothing more; and, if there are no other objects, our eye must rest on the ground, the sea, or the sky, which are all coloured objects. We do not see light unless we look directly at the luminous body, and then we see brilliant colour, and that alone. Light only makes colour visible. The sun more properly *colours up* than lights up nature. The white colour of the sun's rays neutralizes the black colour of darkness; and the different colours of objects are produced by their different reflections and refractions of the sun's rays. One substance will reflect the red rays, another the yellow, and another a mixture of two or several. The whole seven reflected will give us white. The whole absorbed, and we have black. There is no colour, unless black can be called a colour, without light, and no light without colour. If it be said that there is some stimulating power in the sun's ray, which, independently of colour, enables the eye to see even colour itself, we would answer, that there is no proof of this. Colour alone is seen by us; and the only operation of light on the eye is *painting a coloured picture* on the retina. Turn where we will, colour, not mere light, meets us; and all that light does for us is to make colour visible, to come back to our eye in the character of reflected light, analyzed into one or more coloured rays by the particular reflecting power of what without it would be a *colourless* body. Cats, therefore, are not even *grey* in the dark. No colour then exists at all. More of the nature of light we know not. It follows plainly, that we do not need a faculty for perceiving light as different from colour; and therefore may conclude that we have no such faculty; and *e converso*, if colour is all that we do perceive, then a faculty to perceive colour is sufficient; and such a faculty, it has been established, we do possess.

But the analogy between sound and colour admits of yet farther proof. Theoretical musicians are agreed, that although the natural gamut consists of seven notes, there are only *three* fundamental notes, namely, C, E, and G, which are called the harmonic triad, or common chord, the basis of all musical harmony. If any given note be sounded on an instrument, it is always attended, or instantly followed, by those which form a chord, and are termed in music the harmonics. Now Sir David

Brewster, on 21st March 1831, communicated to the Royal Society of Edinburgh a new analysis of the white solar light, shewing that it consists of only *three* primary colours, red, yellow, and blue; and that the other four prismatic colours, green, orange, indigo, and violet, are, in truth, compounds of these three, and, occurring between the two colours of which they are the compounds respectively, make up in the spectrum a harmonious scale of colouring, just as the other four notes of music complete the gamut. Mr Hay of Edinburgh, author of an elegant work, the "*Laws of Harmonious Colouring*,"* anticipated, in 1828, Sir David Brewster's analysis. Mr Hay states, that in 1802 Dr Milner communicated to Repton, the landscape-gardener, the same view of the prismatic colours. Mr Hay's words are well worth quoting: "The following discovery made by Buffon, and illustrated by succeeding philosophers, helped to strengthen me in the conviction, that the scientific theory might, like that of the practical artist (Mr Hay having just said that, with sufficiently pure colours, the whole sevenfold spectrum may be produced by art from three colours), be reducible to three simple or homogeneous parts. If we look steadily for a considerable time upon a spot of any given colour, placed on a white or black ground, it will appear surrounded by a border of another colour, and that colour will uniformly be found to be that which makes up the triad; for if the spot be red, the border will be green, which is composed of blue and yellow; if blue, the border will be orange, composed of yellow and red; and if yellow, the border will be purple; making in all cases a triunity of the three colours called by artists homogeneous. With a view to throw such light upon the subject as my limited opportunities would permit, I went over the experiments by which Sir Isaac Newton established his theory, and the same results occurred; I could not separate any one colour of the solar spectrum into two. The imperceptible manner in which the colours were blended together upon the spectrum, however, and the circumstance of the colour, which practical people call compound, being always placed at the adjunct of the two of which they say it is composed, with my previous conviction, induced me to continue my experiments; and although I could not by analysis prove that there were only three colours, I succeeded in proving it, to my own satisfaction synthetically, in the following manner:—After having tried every colour in succession, and finding that none of them could be separated into two, I next made a hole in the first screen in the centre of the blue of the spectrum, and another in that of the red. I had thereby a spot of each of these co-

* Chambers, Edinburgh; Orr and Co. London.

lours upon a second screen. I then, by means of another prism, directed the blue spot to the same part of the second screen on which the red appeared, where they united and produced a violet as pure and intense as that upon the spectrum. I did the same with the blue and yellow and produced the prismatic green; as also with red and yellow, and orange was the result. I tried, in the same manner, to mix a simple with what I thought a compound colour, but they did not unite, for no sooner was the red spot thrown on the green than it disappeared. It therefore appeared to me that these three colours have an affinity to one another that did not exist in the other, and that they could not be the same in every respect, except colour and refrangibility, as had hitherto been taught." The analogy between each of the three fundamental colours and its harmonic accompaniments as forming a triad, and each of the three fundamental notes of music, as likewise harmonized into triunity, is as striking as it is correct. Mr Hay has followed out the analogy, and, after Field, in his *Essay on the Analogy and Harmony of Colour*, has laid down *on score*, as the musicians say, a chromatic scale of colours, side by side, and in perfect coincidence with, the musical diatonic series. He adds, "By the combination of any two of these primary colours, a secondary colour of a distinct kind is produced; and as only one absolutely distinct denomination of colour can arise from a combination of the three primaries, the full number of really distinct colours is seven, corresponding to the seven notes in the complete scale of the musician. Each of these colours is capable of forming an *archeus*, or key, for an arrangement to which all the other colours introduced must refer subordinately. The reference and subordination to one particular colour, as is the case in regard to the key-note in musical composition, gives a character to the whole."

Considerable aid to our analogy may be derived from morbid manifestation. Miss S. L., *when suffering acute pain along the eyebrows, including the organ of Colouring*, not only saw objects coloured which did not exist externally, but bright *luminous* balls "pouring like a torrent out of the room down the stairs; bright spots like stars on a black ground filling the room both in the dark and daylight; and sudden and sometimes gradual *illumination* of the room during the night, so that the *furniture in it became visible*."* In this last illusion, plainly, Miss S. L. did not see light but coloured objects, and her luminous balls and stars were only bright colours. Mr John Hunter saw the fire assume a colour of deep purple. The Opium Eater had visions of "*insufferable splendour*."†

* Vol. ii. p. 295.

† Vol. ii. pp. 427, 428.

Dr Macnish states in his "Philosophy of Sleep," that he was for some time visited by the illusion of a *brilliantly lighted theatre*.^{*} To these other cases might be added. It thus appears that light may be perceived without any external luminous body acting upon the retina, in the same way as colour may. Many of the spectre-patients recorded in the Phrenological Journal, *felt pain between and along the eye-brows*; and while some saw brilliant lights and coloured objects, and others coloured objects only, there is good reason to conclude, especially from Miss S. L.'s case, that a morbid action of the organ of Colouring would produce the *luminous* illusion. We observe that when treating of Miss S. L.'s case, ten years ago, we referred her luminous visions to a diseased action of that organ, an allotment which we have never seen reason to question. But this is not all. The analogy between colour and sound derives another aid from these cases of disease. The perception of *Sound* was also illusively affected in Nicolai, who after some time "began to hear his spectres speak;" so did Miss S. L., and so did the Opium Eater. He heard, as he says,

"The airy tongue that syllable men's names."

The organ in question is in immediate contact with the super-orbital ridge, and might easily get into morbid action by sympathy. Miss S. L. not only heard voices talking, but music, both vocal and instrumental; and Dr Macnish adds, to his vision of the theatre, that he could get quit of the visible part by opening his eyes, to return when he closed them; "but though I could thus dissipate the spectacle, I found it impossible to get rid of the accompanying music; this was the grand march in the opera of Alladin, and was performed by the orchestra with more superb and imposing effect, and with greater loudness than I ever heard it before; it was executed indeed with tremendous energy."[†] We have here evidence that morbid excitement produces not only colour, but bright light, and that both are perceived in the same morbid state with sounds of voices, and these with music.

Such are our reasons for concluding that it would be more philosophical to speak of the faculty of Sound than of Tune; and of Tune as a higher manifestation of the perception of Sound; but both manifestations of the same faculty. That the full force of these reasons may be seen as they support each other, we offer the following recapitulation. 1st, Sound is the result of

* Vol. viii. p. 562.

† While we write, we have received from Glasgow the melancholy accounts of the death, by typhus fever, of this acute-minded philosopher, able phrenologist, and excellent man; cut off, alas! in the flower of his age, the midst of his usefulness, and bloom of his fame.

a quality of matter, and therefore must have a faculty for its perception. 2d, The faculty must be a *knowing* faculty, and, as such, should have an organ situated in the anterior lobe of the brain; but the only organ which has been observed in that region connected with Sound, is that which has hitherto been denominated the organ of Tune. 3d, The perception, and, to a certain degree, the discrimination of sound is necessary to our safety, and is therefore a faculty possessed by the whole human race. 4th, The perception and enjoyment of sounds in musical relation is not possessed by the whole human race, but only by a part of them, and therefore cannot be the radical base of a faculty. 5th, The perception of sounds, and the perception of the musical relation of sounds, are powers differing in degree and not in kind, because ALL sounds whatever are essentially musical sounds, and therefore must be perceived by one and the same faculty, though in different degrees. 6th, There is a close analogy between colour and sound. But the same faculty perceives simple colours, and likewise their harmonies in painting; and therefore it is inferred that the same faculty perceives simple sounds and their harmonies in music.

We would by no means rest satisfied with a mere argument, however convincing, for the change which we have advocated. Much may be done by observation of the manifestations, both in discrimination and musical relation, in persons differently endowed with the organ hitherto called Tune. The experiments will necessarily be extremely delicate, if not difficult; but not more so than experiments on light, electricity, and magnetism, and many other scientific objects; and talent will adopt ingenious aids in the one as well as the other. Before comparative trials are made of the discriminating powers of different persons differently organized, the powers of mere *hearing*, in each, should be ascertained, by the simple process of marking the distance at which the same sound, and that of the same intensity,—such as the fall of the same small stone or bullet on the same wooden board from the same height measured on a pole,—ceases to be audible. The auditory power being found equal in the different persons, or allowed for, sounds varying in different degrees in their quality and pitch may be tried upon the same persons, and their observations on their difference noted; observing if there be a point at which any of them cease to discriminate, while others, and these the *musical* subjects, can still perceive distinctions.

ARTICLE VII.

CASE OF DISEASE OF THE BRAIN, WITH CORRESPONDING
AFFECTION OF THE MIND. By ABRAM COX, M. D.

ABOUT the middle of November 1836, Dr Spittal and myself were requested to visit Mrs B., a woman about the age of 68, who was at that time confined to bed. We found that about six weeks before, she had apparently an attack of apoplexy, which produced paralysis of the lower extremities. From the condition she was then in (sloughing having commenced on the back), it was evident that she could not survive many days. Her death accordingly took place on the 28th. At our first and subsequent visits, I learned the following particulars regarding her. She was naturally of a somewhat harsh, but very pious disposition; she was a most regular attender of the church, and was in the habit of performing family worship daily; she belonged originally to the Scottish Presbyterian church, but afterwards joined a Baptist congregation, and latterly had no fixed place of worship. About four years before the date of our visit, she met with several family afflictions, by which, however, she seemed little affected. Shortly after, while drinking tea with a friend, she was attacked by a fit, which appears from the description of it to have been apoplectic. She to a certain extent recovered from this; a considerable change, however, occurred in the state of her mind. The principal feature of this was the increased warmth of her devotional feelings; her conversation being generally interspersed with quotations from the Bible, references to a future state, and the name of the Deity. She also occasionally saw visions having the same tendency; for example, of her children inviting her to a future life of happiness. It may be remarked, too, that she never expressed a doubt regarding her own salvation, but, on the contrary, spoke of it as a certainty. This continued till her second apoplectic attack, which gave rise to the paralysis, and a state of mind bordering on dementia. Even then her devotion remained a prominent mental manifestation.

This account, as exact as can be expected from persons of the rank of life of her relations, meagre as it is, is abundantly sufficient to establish the case as one of religious monomania; the more so when it is considered that the principal facts were elucidated from her son and daughter before her death, by the simple expression of a desire on my part to know her mental condition,—and that the increase of her religious feelings after her first apoplectic attack, was pointedly insisted on by them.

The morbid appearances presented by the brain will be found fully to coincide with these symptoms. The brain was examined by Dr Spittal, Dr Macdonald, and myself. On removing it from the skull, serum to the amount of 6 or 8 oz. escaped. A moderate degree of effusion existed between the convolutions generally over the brain. There were several small adhesions between the opposed surfaces of the arachnoid membrane on the right side, about the centre of the coronal region. There was no unusual vascularity of the membranes. At the posterior part of the organ of Imitation on the right side, the brain presented a depression about an inch in length from before backwards, and about three-fourths of an inch broad, occupying the whole breadth of the convolution. Fluctuation was perceptible under the depression. On making an incision, the substance of the convolution was found reduced at that spot to a state of complete fluidity, with the exception of an almost imperceptible layer of gray matter lining the pia mater. On tracing the ramollissement, it was found to extend, in a rather firmer state than the part already mentioned, downwards, backwards, and slightly inwards, into the white substance of the organ of Veneration, nearly the whole of which it occupied, leaving the gray matter of the superior surface untouched. It reached downwards as far as the roof of the lateral ventricle, without penetrating it. From this nidus of ramollissement there extended one or two smaller prolongations towards the left, forming a communication between it and a second nidus, occupying the gray substance on the right side of the great interlobular fissure, equallying in length the corpus callosum. The greatest breadth of this nidus was in the middle, where it reached from within half an inch of the superior surface of Veneration, down to the corpus callosum. It gradually diminished almost to a point at each end. The organs of Veneration and Imitation were thus extensively implicated; the adjacent ones of Hope and Wonder were encroached on to a small extent, and Benevolence still more slightly, and the whole of the long convolution above the corpus callosum, whose use is not yet known. There was also a small tubercular looking body in the white substance, about the junction of the middle and posterior thirds of the brain on the same side. The lateral ventricles had evidently been distended by two or three ounces of serum which had escaped on the removal of the brain from the skull. No other morbid appearance was found in any part of the brain or cerebellum. The basilar artery and its branches were lined with thick cartilaginous plates to a considerable extent.

We have, then, in this case a remarkably accurate and minute correspondence between the symptoms and the state of the brain. The lesion of Veneration is distinctly indicated by the

excitement of the religious feelings. That of Hope is equally clearly indicated by the confidence with which the patient looked forward to happiness in a future life, and lastly, that of Wonder by the visions by which she was visited.

The progress of the case was probably this. Her organ of Veneration possessed great natural activity, bordering perhaps on disease; * for its development, though good, is not remarkable. By being frequently excited, it at last fell into a state of actual disease, ushered in by the first apparently apoplectic attack, a state from which it never recovered, but which, continuing to increase, gave rise at last to the ramollissement and effusion of serum, implicating thereby so great an extent of the brain as to affect not only her entire mind, but also her powers of locomotion.

ARTICLE VIII.

REMARKS ON THE SECRETIVENESS OF THIEVES.

By W. B. HODGSON.

It is very generally admitted by phrenologists that Secretiveness is an important element in the character of a thief. The first attempt to explain the mode of its operation was made, I believe, by Dr A. Combe, in an essay in the 4th Number of the Phrenological Journal, vol. i. p. 611; and the following sentence contains the substance of that writer's views: "Now there is nothing more certain than that a small Secretiveness gives that perfect feeling of openness and impossibility of hiding, which is equivalent to a certainty of detection, and that a large one gives that feeling of concealment and impenetrability, which, in its effects, is almost equivalent to a physical impossibility of discovery." † This idea regarding the function of Secretiveness is recognised in the 3d Number of the Phrenological Journal; "Report on the case of John Pallet," (vol. i. p. 433.) "Secretiveness assured him that because he *wished* to be hidden, he therefore *must be* hidden; like a child who, when it shuts its eyes and sees nobody, imagines that it also in its turn becomes invisible to others." Again, in the 2d vol. of the Journal, p. 533, "On the Cerebral Development of Luscombe, a criminal," the writer of this article remarks: "It has

* She has two sisters who are considered by her son as not entirely *compotes mentis*.

† Dr Combe refers to Mr Scott's Analysis of Secretiveness in the Phrenological Transactions, p. 164, in which he thinks the same view is stated. All that Mr Scott, however, says is, "It inspires the idea that whatever is wrong may be concealed."

been well observed, that Secretiveness produces an inward feeling of extreme secrecy, and lessens the fear of detection; and this, *united with small caution*, will enable us to account for the daring manner in which he committed the murders." Mr George Combe, in his *System of Phrenology*, fourth edition, vol. i. p. 253, observes: "Secretiveness is more invariably large in thieves than Acquisitiveness; and it *prompts to this crime*, probably by the feeling of secrecy which it generates in the mind. It gives the idea that all is hidden, that no eye sees, and that no intellect will be able to trace the fraud." Mr Combe then refers to the article by Dr Andrew Combe just quoted.

With all deference to the opinion of these writers, it seems to me that they have mistaken the nature of this organ, and that their views are not merely at variance with facts, but inconsistent with the acknowledged office of the faculty itself. I am satisfied that Secretiveness does aid the thief; but several considerations induce me to believe that the mode of its operation is very different from that just mentioned.

1st, The primitive function of Secretiveness is understood to be a disposition to conceal one's thoughts and actions from others. Now there is no perceptible connexion between desire of concealment, and consciousness of concealment. Cautiousness produces fear of danger, or the converse, desire of safety; but the desire of safety is not necessarily productive of the consciousness that you are safe. The same appears to me to hold true of Secretiveness.*

2dly, Not only is consciousness of concealment not necessarily proportioned to desire of concealment, but the reverse; for the more anxious an individual is to conceal, the more doubtful is he of the sufficiency of his measures for that end. This follows from the acknowledged tendency of Secretiveness to render us suspicious of others, and fearful lest they know too much of our designs. Mr Combe observes in his *Essays*, that those in whom this organ is "largely developed, are fond of throwing a dense covering of secrecy over all their sentiments

* Cautiousness bears the closest analogy to Secretiveness, but the principle applies to all the faculties. Imitation, for example, produces the desire to imitate, but by no means gives the consciousness that you are actually imitating. In fact, the stronger the sentiment, the more likely is an individual to act under its influence, automatically and unconsciously. Mr Simpson, in his excellent *Essay on Ventriloquism* (*Phren. Journ.* vol. ii. p. 589), mentions that he has met with several cases of great power of imitation existing without the consciousness of the possessors, one of whom denied that he had ever imitated any person in his life, though he involuntarily copied the voice and manner of every one with whom he held much intercourse. Imitation, however, to be an exact parallel to the alleged function of Secretiveness, would require to produce consciousness not merely of imitation, but of successful imitation.

and actions, even the most trifling and unimportant, and *conceive that the eye of the world is always looking into their breasts*, to read the purposes and designs there hatched, but which discovery they are solicitous to prevent." Now a faculty which leads a man to conceive "that the eye of the world is always looking into his breast," when increased in power, can surely never give the idea "that no eye sees." It is more consistent to believe that it is the man with small Secretiveness who fancies that no eye sees. In the same way Cautiousness, from causing fear of danger, prompts us to take precautions against it; but the stronger the Cautiousness in any individual, the less is he satisfied of his security, even after all the means which he adopts to ensure it.

3dly, Persons in whom Secretiveness is large feel any thing but a consciousness of secrecy. Dr Andrew Combe, in his phrenological essay (*Phren. Journal*, vol. i. p. 365), mentions Pope as an instance of predominant Secretiveness. Dr Johnson says that he could hardly drink tea without a stratagem; and Lady Bolingbroke used to say that he played the politician about cabbages and turnips. Dr Johnson adds, "*he was afraid of writing, lest the clerks of the post-office should know his secrets.*" Here we see indisputable signs of great love of concealment, but the very opposite of a consciousness of secrecy. Had Secretiveness operated in the manner alleged, he would have had no fear of his letters being examined by the clerks of the post-office.* In many other cases I have observed the same fact. The rashness with which Luscombe and Pallet committed murders is accounted for, in the case of the former, by the writer of the article himself, who mentions that his Cautiousness was small; and in the case of the latter, by a reference to his stated development, in which Cautiousness is marked "rather full or moderate;" while in both the intellectual region was deficient.

4thly, If it were in this way that Secretiveness assisted theft, then the greater the Secretiveness, the more perfect would be the individual's feeling that he was unobserved, and consequently the more open would be his depredations. It follows, therefore, from this view of the operation of Secretiveness, that the thief in whom it is largest will be the most rash and the most easily detected. A feeling which acted in this way would be but a treacherous assistant; and Secretiveness would be an anomalous instance of a faculty which, by an increase of its powers, defeated its own ends.

* It is curious that Dr Combe quotes, in illustration of this character of Pope, the very passage from Mr Combe's essay which directly contradicts his own views regarding this faculty, as stated in the *Phrenological Journal*, vol. i. p. 611.

The manner in which Secretiveness aids the thief appears to me more consistent with the primitive function of the faculty. *1st*, It enables the individual to restrain the outward manifestations of his Acquisitiveness till he is satisfied that no eye is watching him. The larger his Secretiveness, the more difficult will it be, I conceive, to convince him that he is unobserved, and accordingly, the more patiently will he wait a favourable opportunity. *2dly*, It gives a positive pleasure in abstracting an article, as a handkerchief from a pocket, in such a way as to escape observation. This pleasure is perfectly distinct from the gratification given to Acquisitiveness by the appropriation of the article. The exercise of all the organs is attended by a pleasant emotion, and writers who are not phrenologists recognise the pleasure which accompanies the activity of Secretiveness. James, in his novel of *De L'Orme* (vol. ii. p. 31), says of some smugglers—"They seemed to take delight in the mystery and secrecy of their ways." Persons have been known to pocket silver spoons and forks from their own tables. Now, such conduct can scarcely be referred to Acquisitiveness in individuals whose intellect is sane, because the spoons and forks are known to be their own property already; and much less to Secretiveness, on the theory to which I object; because, although the consciousness of concealment might leave the desire to steal at full liberty, yet it cannot of itself produce that desire, or "*prompt* to theft." But, on the other view, it is easy to imagine such persons watching the eyes of all around them, seizing the favourable moment when attention is withdrawn, and dexterously conveying the spoon into their pocket, with all the satisfaction of gratified Secretiveness. In common society I have met persons who had the greatest pleasure in secreting articles which they had not the slightest intention or desire to retain. I should think it probable that Secretiveness will be found more fully developed in thieves, in proportion to the dexterity which they require and manifest; larger in pick-pockets, for example, than in highwaymen. *3dly*, By giving a desire of concealment, Secretiveness leads a man in whom it is powerful to prefer the dark and tortuous paths of duplicity, to the openness and candour of undisguised integrity. It involves him in difficulties, in order to preserve the concealment which he has assumed,—subjects him to great temptations to falsehood and deceit,—weakens the distinctions between justice and injustice, and prepares the way for every sort of crime. It was not without reason observed, I think by Dr Johnson, that he who conceals for the sake of concealment, will soon find something which requires to be concealed.

These views, however imperfectly expressed, I have held for many years, and all the observations which I have been able to

make confirm my belief of their correctness. I now propose them for the consideration of the readers of the *Phrenological Journal*.

Remarks on the above Communication, by Dr A. Combe.

Having carefully read the preceding article after it was in types, I cannot perceive that there is much, if any, real difference between Mr Hodgson's views and my own, and believe that the supposed discrepancy has arisen from his having attached a meaning to an isolated sentence of my paper, which, when taken along with the context, does not really belong to it.

The whole of Mr Hodgson's objections proceed on the assumption that, by a "feeling of concealment," I mean a firm belief of being actually concealed, which however is a very different thing. I may feel that I am concealing a thought or deed, and yet be perfectly aware that it is *not* effectually concealed against any active effort to find it out. In the former case, the *simple* consciousness that "I am concealing" certainly seems to me to spring from Secretiveness alone; but it is not less clear that, before I can experience what I would call the *compound* consciousness of the concealment being either effectual or the opposite, I must take measures, by means of the other faculties, for the express purpose of deceiving, and employ the intellect to judge of their adequacy to the end proposed. From not attending to this distinction, and to the fact that the *only* object I had in view was to describe the operation of Secretiveness when so acting along with the other faculties, Mr Hodgson has ascribed to the sentence which he quotes a meaning quite different from that given to it by the substance of my exposition. I did not profess to give any analysis of the primitive function of Secretiveness considered *per se*, as Mr Hodgson's remarks would lead the reader to suppose, but merely to shew that where the moral organs are not largely developed, the difficulty of resisting temptation to crime is increased by the possession of a powerful Secretiveness; because the latter is then able to suggest schemes by which its possessor may so effectually conceal his conduct, as to give little alarm to Caution from any fear of punishment, or to Love of Approbation from any probable loss of reputation, and thus weaken the influence of these feelings as *restraining powers*. Whereas, if Secretiveness be so small as to give little chance of effectual concealment, both of these propensities will come more actively into play, and suggest more strongly the prospect of punishment and disgrace as reasons for not yielding to the temptation.

In pursuance of these objects, I state that if A. B. possessing a large Acquisitiveness combined with moderate Conscientiousness, average Cautiousness, Self-esteem, and Love of Approbation, be exposed to temptation by a favourable opportunity of embezzlement, he will be more likely to resist it, if he has at the same time a *small* Secretiveness, than if he has a large one. In the former case, the deficiency in the power of concealment will leave the conduct so open to observation, that Love of Approbation, Cautiousness, &c. will remain in full activity as *restraining* impulses in the form of fear of punishment, degradation, and disgrace; whereas if Secretiveness is very large, he will be more likely to yield to the temptation, because the consequent great power of concealment will enable him "to manage matters so as to make suspicion fall in all directions but the right one;" and Cautiousness being thus assured that there is little danger will cease to act as a check, and Love of Approbation being also apparently protected from public exposure, will in its turn cease to interfere.

Such was my whole aim, and it is left entirely untouched by Mr Hodgson. The whole tenor of the essay, indeed, implies that the subject of investigation was not the analysis of what Secretiveness does when acting singly—but its mode of influencing the action of the other faculties, and if Mr Hodgson will peruse it again with this view, I cannot help thinking that he will agree with me to a greater extent than he at present imagines. In his description of the abstract functions of the faculty I entirely concur; but I can see no inconsistency in believing farther that a large endowment of it—by leading its possessor to confide in his power of concealment as a means of escaping punishment and disgrace—virtually diminishes his ability to resist temptation, and often induces him to consider himself much more safe in his fancied hiding, than the result would warrant if he could only foresee it.

Were it necessary, I could adduce many facts to prove that this is really one of the modes in which Secretiveness modifies the operation of the other propensities, but shall confine myself to a very striking confirmation, which occurred last summer during my stay in Brussels. Ducarla, a French officer in the Belgian service, was tried for a long course of fraud and embezzlement in his regimental accounts. The deceit had been so successfully carried on, as almost to defy scrutiny; and, in the full consciousness of designed, and, what appeared to him at the time, impenetrable concealment and consequent impossibility of discovery, Ducarla actually returned from France to face his accusers, when he might have continued to live there unmolested. Throughout a trial of nearly fourteen days he shewed no sign of uneasiness, or doubt of securing his acquit-

tal; and so dexterously had an excellent intellect aided his Secretiveness in concocting his plans, that, even after all the evidence was heard, he assumed in his speech so much of the dignity of injured innocence, and at the same time gave such plausible, and apparently indignant, explanations of the principal facts, as to enlist the sympathies of his audience on his side, and force the conviction upon many that he was a model of disinterestedness, uprightness, and honour. The prosecutor, however, having obtained the clew, unravelled his intricacies, and, to his apparent astonishment, he was found guilty and, of course, publicly disgraced. Finding his most confident anticipations of successful concealment thus thwarted, he lost command of himself for a moment, and, after uttering vehement reproaches against all concerned, entreated that he should not, according to the terms of his sentence, be exposed on the pillory, and publicly branded on the shoulder as infamous. In this officer the Secretiveness, aided by an excellent intellect and active Cautiousness, had taken the greatest possible care to guard against every risk of detection; and it was unhesitating confidence in his concealment, which, under the impulse of wounded Love of Approbation, led him to subject himself to trial, in the belief that he would be able afterwards to appear before the public with a character free from stain, and free from suspicion. In this instance it was not deficient Cautiousness that led him into danger, for almost every possible contingency was foreseen and provided against with remarkable sagacity. But every step which he took, and every word which he uttered, were directly referrible to a consciousness of effective concealment—the result of well-laid plans—as the abiding feeling of his mind.

Mr Hodgson thinks “there is *no* perceptible connection between the desire of concealment and consciousness of concealment,” as he says “there is none between the desire of safety and the consciousness of being safe.” In this I entirely differ from him. Without Secretiveness, I cannot understand the possibility of experiencing a consciousness of concealment; and without Cautiousness, I cannot understand the possibility of a consciousness of safety. According to my view, Secretiveness, when engaged in crime, employs the other faculties in devising schemes for concealment and deceit; and if the whole combined succeed in contriving one *with the efficiency of which they are all satisfied*, then Secretiveness feels contented, and conscious of having attained its end—concealment. The same holds with Cautiousness. If I stand opposite to a loaded cannon, Cautiousness suggests danger, and employs intellect to find the means of safety. The latter tells me, that, if I stand behind instead of before the cannon, I shall escape mischief, on which

Cautiousness sees nothing more to fear; or, in other words, is conscious of safety, and is satisfied. I know no faculties to which the consciousness of concealment and of safety can be referred if not to Secretiveness and Cautiousness aided by information from the intellect that their desires are fulfilled. It is the same with Imitation. In every *voluntary* effort to imitate we are conscious of imitation, just as in every voluntary effort to conceal we are conscious of concealment. It is no objection to this truth to say, that we often imitate without being conscious of it. We do so, but only when the mind is intent upon a different object, just as we are not conscious of a clock striking when we are immersed in reflection. The moment we attend to the operation of any faculty, we are conscious of its action; and, except by means of the faculty itself, we can have no such consciousness. Even in the case of Pope, it seems to me, notwithstanding Mr Hodgson's objections, that his very fear of having his letters read at the post-office implied a wish for, and a consciousness of concealing on his own part. He did not feel a *security* of concealment it is true, because his other faculties were not satisfied that his measures were sufficient to effect it; but he felt conscious in his own mind that he was concealing, and that is all that I ever contended for.

The expression quoted by Mr Hodgson from Mr. Combe's System, of Secretiveness "prompting to crime," is obviously an accidental inaccuracy, and therefore need not detain us.

In concluding these hasty remarks, I may add, that it gives me much pleasure to observe a mind like Mr Hodgson's devoting itself to the diffusion and improvement of the phrenological philosophy. Much may yet be expected from his talents and zeal in the good cause.

A. C.

ARTICLE IX.

THE PHRENOLOGICAL LIBRARY. Edited by NAHUM CAPEN.
 Boston, U. S.: Marsh, Capen, and Lyon. 12mo. Vols. I. to VI.
 Translation of Gall on the Functions of the Brain.

WE have received the first six volumes of "The Phrenological Library," containing a translation of Dr Gall's large work "Sur les Fonctions du Cerveau," by Dr Winslow Lewis junior, of Boston. "The Phrenological Library" is to embrace "works on Human and Comparative Anatomy, the Physiology of the Brain, Mental Philosophy, Natural Theology, Ethics, Political Economy, Education, Criminal Legislation, and such works as have for their object the improvement and happiness of man.

The volumes will be printed and bound in a uniform style, and no pains or expense will be spared to render the series both useful and interesting." The second work in the series is Mr Combe's "Constitution of Man considered in Relation to External Objects;" the third, Mr Simpson's "Necessity of Popular Education as a National Object;" the fourth, Dr Macnish's "Philosophy of Sleep;" and the fifth, Sir G. S. Mackenzie's "Essay on some Subjects connected with Taste." The volumes are extremely neat, and the typography and paper excellent. We rejoice that the English reader may now have access to the work of the founder of Phrenology. A rapid sketch of its contents will not here be out of place.

In the *first* volume, entitled, "On the Origin of the Moral and Intellectual Faculties of Man, and the Conditions of their Manifestation," Dr Gall demonstrates the innateness of the mental powers, and refutes at great length the notions of Helvetius, and other philosophers, by whom those faculties are represented as called into existence by impressions received through the senses, by education, by climate and food, by wants, attention, social life, pleasure and pain, passions, and desire of glory. After exposing, in a masterly style, the absurdities which have been palmed upon the world on these subjects under the name of philosophy, he proceeds to the question, "What are the conditions required for the manifestation of the moral and intellectual faculties?"—in reply to which he demonstrates, by a crowd of irresistible facts and arguments, that this manifestation depends on corporeal or material conditions, without the existence of which no faculty can be displayed in the present life. He then considers and repels the popular accusation, that this doctrine leads to materialism, fatalism, and the destruction of moral liberty; and, in the concluding part of the volume, he shews the application of Phrenology to man regarded as an object of education and punishment—discussing in particular the retribution which ought to be exacted from criminals who, from natural weakness of intellect or morality, from strength of passion, or from disease of the brain, and consequent derangement of mind, are little, or not at all, endowed with the power of self-control.

The sub-title of the *second* volume is, "On the Organs of the Moral and Intellectual Faculties, and the Plurality of the Cerebral Organs."* This volume opens with a desultory introduction, comprising a historical sketch of the proceedings of former inquirers into the structure and functions of the brain. The question is then put—"Whether is the soul confined to one part of the body, or diffused over its whole extent?" Before considering this problem, Dr Gall gives an account of the leading hypotheses

* "I call *organ*," he says, "the material condition which renders possible the manifestation of a faculty."—*Tome i. p. 232.*

which have figured in ancient and modern times with respect to the seat of the soul and the reciprocal action between it and the body ; and here he finds another opportunity of exposing many gross aberrations of the human understanding. His next proceeding is to exhibit the arguments which appear to prove that the brain is *exclusively* the organ or material condition of sensation and of the mental act involved in voluntary motion ; together with various considerations tending, on the other hand, to shew that there are likewise *other* parts of the nervous system, of themselves capable of producing those phenomena : but, after viewing both sides of the question, he declares himself unable to decide between them. Leaving, therefore, to future observers the task of finally determining whether or not *sensation* and *voluntary motion* are possible without the assistance of the brain, he comes to the grand question, " May the brain be considered as the exclusive organ of the *intellectual* and *affective* faculties ?"—and the evidence adduced in favour of an affirmative reply is absolutely overwhelming. He then considers the various objections which have been urged against this doctrine, and successfully rebuts them all. The next section of the volume is " On the means of discovering, with the aid of the brain, an index of the affective and intellectual powers." Various modes of discovering such an index had been suggested by previous physiologists. Some had imagined the intelligence of men and animals to be in proportion to the absolute size of the brain ; others, that it depends on the cerebral volume in relation to that of the entire body : some had looked for an indication in the development of the brain as compared with that of the nerves, the spinal marrow, or the face ; by others it had been sought for in the proportion of different parts of the encephalon to each other ; and lastly, the facial angle of Camper, and occipital line of Daubenton, had been widely discussed. But all these modes of procedure were founded on gratuitous assumptions, ran counter to experience, and hardly deserved, what Dr Gall has nevertheless given them, a lengthened and anxious refutation. " The interpretation of the different forms of head " is the next topic ; in discussing which, Dr Gall shews that very small heads are uniformly accompanied by feeble minds, and that in men of commanding genius and originality, and whose minds, as a whole, are pre-eminently vigorous, the brain is always large. It is proved by experience, however, that very opposite dispositions and the greatest diversity of talent may exist in two individuals whose heads are of equal size ; whence it plainly follows, that *characteristic tendencies* bear no relation to the *absolute volume* of the brain as a whole. But the difficulty here met with at once disappears, if we attend to the variety of forms which heads assume. It is found that *character*—in other words, the relative

energy of the mental faculties—varies with the *shape* of the brain; and this circumstance leads directly to the conclusion, that different parts of the cerebral mass are connected with different faculties—in short, to the fundamental principle of Phrenology, that the brain is a *congeries of organs*, each performing its appropriate function. Of the doctrine of the plurality of cerebral organs, Dr Gall accordingly proceeds to treat. After shewing that the idea is far from being new, though no *demonstration* of it had previously been given, he brings his heavy artillery to bear upon it, in the shape of a multitude of anatomical, physiological, and pathological proofs, whereby the principle is, in our estimation, set altogether beyond the reach of controversy.

The *third* volume treats of the “Influence of the Brain on the Form of the Skull; and the Difficulties and Means of determining the Mental Faculties, and discovering the Situation of their Organs.” Dr Gall examines, in this volume, the circumstances in which it is possible to infer the development of the brain, either in whole or in part, from the external appearance of the skull, and consequently to judge, by inspecting the head, of the moral and intellectual tendencies of individuals. On this subject he goes into numerous details, to which we cannot here advert. The next section, entitled “Preliminary Discourse to the Organology,” is devoted to the difficulties and means of determining the fundamental faculties, and the functions of the different parts of the brain. After shewing the insufficiency of anatomy, pathology, comparative anatomy, and mutilation of the brains of living animals, to determine the organs and their functions, the author gives a very interesting exposition of the means adopted for this purpose by himself, and the obstacles which he found in his path. The remainder of the third volume, and the whole of the *fourth* and *fifth*, are occupied with a detailed exposition of the mental faculties—“*Organologie, ou Exposition des Instincts, des Penchans, des Sentiments, et des Talens; ou des Facultés Intellectuelles Fondamentales de l'Homme et des Animaux, et du Siège de leurs Organes.*” In treating of each faculty, Dr Gall gives a sketch of the history of the discovery of its organ, its natural history in man and the lower animals, the phenomena of its derangement, and the appearances indicative of the size of the organ.

The *sixth* and concluding volume is somewhat desultory in its character; it is entitled, “Critical Review of some Anatomical and Physiological Works, and Exposition of a new Philosophy of the Moral and Intellectual Faculties.” Dr Gall here discusses a variety of statements and experiments of Tiedemann, Coster, Flourens, Serres, and Antommarchi, relative to the anatomy and physiology of the brain. But the exposition of the

"new philosophy" is the most interesting part of the volume. He points out the distinction between fundamental powers and their general attributes, or modes of action common to different faculties; shows that perception, memory, judgment, and imagination are merely forms in which the primitive faculties act, and by no means faculties themselves; and enters into a discussion concerning the motives of human actions, the origin of the arts and sciences, and the perfectibility of our race.

Every part of this work abounds with striking and original ideas, and with facts of the highest value to the student of human nature. Although the views of Dr Gall have been in various respects improved on and rectified by Dr Spurzheim, Mr Combe, and other recent phrenological writers, the treatise we have now given an account of will long be resorted to as the production of the founder of Phrenology, and as a rich mine of information with respect to the moral and intellectual nature of man. We are not without hope that the present notice of its principal contents will somewhat widen the circle of its readers in the United Kingdom.

ARTICLE X.

REMARKS ON THE FUNCTION OF THE ORGAN OF LOCALITY. By WILLIAM HAMCOCK Junior.

TO THE EDITOR OF THE PHRENOLOGICAL JOURNAL.

SIR,—The publication of Mr Edmondson's excellent paper on Weight and Constructiveness has set me thinking upon a difficulty with regard to the assumed functions of Locality, which has hitherto been a stumblingblock to me, and may possibly be so to other phrenologists. If you think I have now lighted upon any thing likely to remove it, you will perhaps be kind enough to give it publicity through the pages of the Journal. The difficulty to which I allude is, a conviction I have long had of the distinct nature of two operations, both ascribed to the organ of Locality,—namely, those of recollecting places, and of finding one's way from place to place. I have frequently observed that these two faculties exist in very different strength in the same individual: if both were actually dependent upon one organ, this could never be the case. The capacity of the Indian to thread his way through the mazes of an untrodden forest, and, without seeing the sun or a star for days together, never to lose his track, or deviate from his direction—the instinct by which a carrier-pigeon, a dog, or a cat, returns from a distant place, whither it may have been carried in a bag, without the possibi-

ability of seeing the country through which it passed—has hitherto been ascribed to Locality, the primitive function of which appears to be the recollection of places, through the medium of relative position. It certainly seems to me that Locality in this sense can have nothing to do with either of the operations I have mentioned; for there can be no recollection of places never seen, or of the relative position of objects whose situation can have been neither observed nor conceived. I hope to shew that these actions result from the faculty of Weight, as explained by Mr Edmondson, and that in this case it acts in its function of *direction*. Mr Edmondson believes this organ to cognise straight lines, in all their relations, whether vertical, horizontal, or inclined; and, indeed, the maintaining our bodies in equilibrium is a constant exercise of the faculty in all these relations. Now, if an Indian has to cross a hundred miles of untrodden forest, he can only do so by bearing in mind the *direction* of the point he has to gain, and, if turned aside by a river or a jungle, by judging rightly of the amount of deviation, and regaining his original direction on the first opportunity. An individual with large Weight, who may have to go for the first time from Brunswick Square to Westminster Bridge, would merely inquire the direction in which it lay, and perhaps find this way without a single other inquiry, having an instant perception of the degree of every angle which the streets obliged him to make, and compensating as nearly as possible for every deviation by one of equal amount in a contrary direction. An acute perception of straight lines, with the relations they bear to each other, as in angles, enables one to do this very correctly. A person with less Weight would inquire, and endeavour to bear in mind, every turning to the right and to the left. The recollection of places is evidently distinct from this, and cannot, I think, result from the same organ. I have long ago recognised in myself a much greater facility of finding my way than of recollecting places (a presumption that both do not result from the same organ); this I always do by remembering my direction, and never forgetting what persons here very significantly call “the lie of the country,” so that I can generally, amidst the turnings and windings of a day’s journey in a strange land, point accurately to the starting or the resting place; and, even when travelling in a coach by night, I have often fancied I could perceive, from the motion of the vehicle, the *amount* of every turning in the road, and the different *lie* it brought us upon. From the analogy, therefore, of my own feelings, I can easily conceive that some inferior animals may possess a faculty of this kind, strong enough to give them an unerring perception of the *direction* in which they are going, even without the aid of light; and I think that we need no longer recur to the supposition of a sixth sense to

provide for this most extraordinary, and generally supposed unaccountable instinct. The difference between man and the lower animals is, for the most part, found to be not in kind, but only in degree. It would be curious to observe if those animals, who have this capacity of finding their way from distant places, do not perform all their movements in straighter lines than those not so strongly endowed with the faculty in question. In this inquiry it must not be lost sight of, that some animals may have the *ability*, but not the desire, to find their way home; for, unless they have large Concentrativeness, or Attachment, or whatever may be supposed to attach them to a certain place, they would have little wish to return. I am too ignorant of natural history to follow out this suggestion, but I think it very probable. As far as I can recollect, the flight of birds of passage is on no occasion in curves, but always in straight lines, or, as the snipe, zigzag, in well-defined angles. Individuals to my knowledge have, in foggy weather, at night, and even in broad daylight, ridden on a monotonous heath, till in a short time they have found themselves exactly at the point from whence they started. I think it would be hardly possible for a person with a large and vigorous Weight to do this.

I trust I have now shewn that man and animals find their way, especially in unknown districts, from a faculty of *direction*, and that this faculty of direction is not dependent upon Locality as at present understood. It now remains for me to look on the other side, and inquire how far Locality is dependent upon direction. In pursuing this inquiry, I find that, though I can clearly distinguish between Locality, as recollection of places, and direction, as I have endeavoured to explain it, I fail to make the same distinction between relative position and direction; and the more I think upon it the more I am obliged to conclude, that direction and relative position are but modifications one of the other, if indeed they are not exactly the same thing; for I cannot see how there can be any idea of relative position except from a *previous* perception of the *direction* of objects with regard to each other, and drawing, as it were, in the mind's eye, *lines* from one to the other.

If therefore, as I believe, the faculty of *direction* is entirely dependent upon the organ called Weight, *relative position* must be so too; and *Locality*, presuming it to be identical with relative position, must also result entirely from the same organ. In this view, direction would be the primitive faculty, and Locality, presuming it to be relative position, only another mode of operation. Now, this clearly is not the case, for I think I have sufficiently made out a distinction between the recollection of places and their direction; and if this be admitted, there is no escaping the conclusion that Locality is not the same as

relative position; it therefore remains to consider what it is, and in doing this I must take a higher flight, into the regions of speculation and the uncertainty of theory.

I hope I shall not frighten my brother phrenologists out of their sober senses by hazarding the bold conjecture—that *there is no special faculty for Locality at all*,—that the recollection of places is the combined operation of several faculties,—and that the whole of the space now allotted to Locality and Weight is in reality but one organ, subserving to the faculty of Verticality or Direction, as explained by Mr Edmondson. It seems to me that the recollection of places, which I believe has always been deemed the primitive function of Locality, *must be* an operation of the perceptive faculties generally; that its chief constituents are Direction or relative position, Form, and Size; and that the perceptions of these organs are probably aided by Colour, Order, and Number, and made an individual conception by Individuality. The workings of one's own mind may be appealed to with great advantage in confirmation of this idea. On first seeing a street or a square, for instance, our first perception is probably the direction or relative position of its different objects; our next, its form, and the forms of its different houses; and our next their sizes; the other perceptive faculties helping to make up the picture. I can conceive no other way of recollecting places, and I feel convinced that relative position is only a component part in the operation. The same method of recognition, of course, applies to all other localities, both in nature and art.

I wish every reader would stop here, and reflect on the idea he entertains of a distant place. Let him shut his eyes, and bring before his mind any familiar scene, and I really think he will find the mental operation much as here stated. No doubt the order in which these faculties will be found to act will differ occasionally according to their relative strength in different individuals, as well as perhaps according to the most striking features of the place to be remembered, form being the predominant feature of one place, size of others, colour of others, &c.; but still I think the order will *generally* be found as I have mentioned above. I am afraid, though guilty of much repetition, that I have not made myself clearly understood, or explained myself so well as I ought; but as repetition is better than ambiguity, once more, the gist of my meaning is shortly this—That there is no particular organ of Locality, but that the recollection of places is the combined operation of several faculties,—that the two organs now called Weight and Locality are in reality but one, subserving to the faculty of direction, and that direction or relative position is only an ingredient, though probably the principal one, in the recollection of places. Though I can, of course,

as yet offer no direct proof of the views I have ventured to adduce, it certainly seems rather out of the usual course of nature that the immensely important functions of direction, equilibrium, &c. should be dependent upon the small portion of the brain hitherto allotted to the organ of Weight; for there can be little doubt that the organs of the mind are larger or smaller as their functions are more or less important to our existence and wellbeing.

I am well aware that this is but a crude and undigested theory, but it takes a long time for a single phrenologist to prove or disprove a theory by his own observations; and the idea seems to be so probable, even after considerable allowance for the fact that—

“To observations which ourselves we make,
We oft are partial for the observer’s sake,”

that I cannot refrain from stating the suggestion, to be made or marred by the phrenological world in general. A circumstance has within these few days come to my knowledge which bears out the idea in some degree, and as the case itself is extraordinary, and in other respects interesting, I shall relate it. A patient in the infirmary of this place received considerable injury of the brain, as there is great reason to believe, from exfoliation of the bone, somewhere about the cribriform plate; he felt most excruciating pain over the brow, and became perfectly blind; he then began *to totter in his walk, and fancy every thing was falling down*; nothing could divest him of this idea; he also fancied that every moment somebody was going to let water fall upon his head, and that every step he took he should be *precipitated into a deep hole*; in this state, they were two hours getting him to his bed-room, for though, as he himself told me, he knew perfectly well where he was going, and crept all the way upon his hands and knees, he could not get rid of the conviction, that every step he took the whole fabric would come down, or that something would fall upon his head. At this time he often saw the most distinct groups of persons, some of whom he knew, and others he did not know, ten or a dozen at a time, of their usual size, and in *clothing of all colours*, and if he had not known that he was perfectly blind he should have sworn that he had seen them. He asked his nurse continually if she were not *dressed in white*. These effects for this time passed away, but two days after returned in greater violence; he was then in agony that every thing around him was falling down, and he stood four hours, pushing with all his might against a wall, which he declared would fall upon his children, warning everybody not to come near, lest they should be buried in its ruins. In this state he was taken to his own home, fancying all the while that the hedges were

tumbling down, and the carriage turning over. He went to bed, slept sixteen hours without ceasing, awoke perfectly sane, and has since had no return of these symptoms.

How exactly all this accords with Mr Edmondson's views, all who have read his paper will perceive; and the part which I think more especially bears out the supposition I have ventured to give of the nature of Locality is this:—While his faculty of direction, which I believe to be the same as relative position, was so decidedly diseased, as evinced by his perverted notions of equilibrium with regard to surrounding objects, and by his unsteadiness in walking, which was not the result of weakness, he was yet able by his other faculties to find his way without difficulty from room to room; but from his entire blindness, these faculties could not indicate to him his locality, except from the sense of feeling; and accordingly, after being in a room for a little time, he would all at once fancy himself at another place, and say, How came I here? I never was here before. Why don't you take me to so and so? mentioning, perhaps, the very room he was in. I cannot account for this, except upon some such view of Locality as I have given. This is an instructive case altogether, offering much food to the phrenologist; it seems to prove, if indeed proof still be needed, that the seat of Colour is in the brain, for, though perfectly blind, he had a distinct perception of colours. If I am correct in my view of Locality, all those who have a deficiency of the organ, as at present situated, should be unable to make straight lines, or to perceive them acutely when made. I know one instance of a lady who is extremely deficient in practical Locality, and in whose drawings houses and towers are always tumbling down. I know not if a deficiency in Locality accompanies the same defect in those ladies Mr Edmondson speaks of. I fear you will think this communication far too long already, but I cannot conclude it without thanking Mr Edmondson for the zeal and ability with which he has analyzed the functions of Weight and Constructiveness; as far as my own trifling observations go, they perfectly accord with his. It will be seen that the whole of this paper is based upon the correctness of his ideas, and I cannot help thinking that he has made a real discovery, and that his paper is a very valuable addition to phrenological science. One phenomenon in drunkenness strikingly confirms his opinion that the organ acts through two media, those of sight and muscular sensation. Some persons, when a little elevated by wine, have all their faculties perfect, and feel in all respects perfectly well *so long as their eyes are open*. But no sooner are their eyes shut, than away they swim, towsing up and down like a ship upon the ocean, which produces an instant sensation of nausea and sickness,—open the

eyes and all subsides again. I have experienced this more than once, and I conceive it to arise from Weight, or rather Direction, being still able to perceive equilibrium while both media, namely sight and muscular sensation, are active, but unequal to the function when sight is withdrawn and muscular sensation alone in action. It appears extraordinary that the same effect is produced even in the dark, but I have no doubt that there is almost always a glimmering of light, sufficient for the eye to take hold of some object which may give an idea of direction. The effects of sea-sickness also, admirably exemplify Mr Edmondson's ideas of Weight; and the observations of other phrenologists all but confirm his views of Constructiveness,—for the organ so called has been recognized as indispensable to many operations in no way allied to construction, as you remark in your last Number; such as good execution on musical instruments, drawing or merely copying in pencil, making a pen, folding a letter nicely, &c., each of which, except in the person who invented the *method*, requires little but imitation and manual dexterity or force. According to Mr Edmondson's views, Constructiveness must be large in all those who have great nicety of touch: it is possible to some persons to mend a pen tolerably in the dark. I find so far, that all who have it large can shave easily in the dark without cutting themselves, and the contrary; some regiments I believe are, or have been, obliged to do so; this would be a capital field for observation. Good rifle shots must, I presume, have large Weight, and good shots on the wing large Constructiveness also; for the first seems chiefly to depend upon direction, and the last upon muscular quickness also. I hope practical phrenologists will turn their attention strongly to these two organs, for the settlement of the primitive functions of the still disputed organs is of great importance to the advancement of the science. Changes in names, or supposed primitive functions, operate very much to the discredit of Phrenology, especially with those who cannot or will not see that the faulty names have always been given by mistaking the mode of its operation for the faculty itself; thus, because a large Force would naturally seek to gratify itself, which it cannot easily do without first *constructing*, the organ has been called Constructiveness, and so on. Even if it should be found that there is no special faculty for locality, it is very natural that the chief operator should have given a name to the operation; but people in general will not take the trouble to reflect upon an explanation of this kind, and, therefore, the sooner names and functions are upon a permanent basis, the sooner shall we be able to claim admission among the exact sciences, and the more way shall we make among those who can be in-

duced to see nothing but that which is straight before their eyes. I am, Sir, your obedient servant,

WIVELISCOMBE, SOMERSETSHIRE,
Nov. 10. 1836.

WM. HANCOCK jun.

[Mr Hancock does not seem to be aware that his idea of the nature of Locality is essentially that which was held by Dr Gall, of whose chapter on this faculty we gave a translation in vol. iv. p. 524. Those phrenologists who have spoken of Locality as the memory of places, have never, we conceive, meant by the word "place" the *appearance* of objects, but merely position, or, what is the same thing, locality. We ourselves, at least, have long held the views expressed by Mr Hancock, regarding the faculties which remember the aspect of *objects in places*. The facts mentioned by Mr Hancock are of great value, and we have much pleasure in laying them before our readers. It does not appear to us, however, that he has identified Locality with what Mr Edmondson holds to be the function of Weight; for it is not direction generally that Weight is supposed by that gentleman to cognize, but only the direction of gravitating force.—EDITOR.]

ARTICLE XI.

PHRENOLOGICAL ACCOUNT OF JAMES B. C. HAWKINS. By
MR JOHN ISAAC HAWKINS. (From the Christian Physician and Anthropological Magazine, Nos. 3 and 5 of vol. ii.)

IN the 7th volume of our Journal, the reader will find an extremely interesting account of James B. C. Hawkins, who died at the early age of $7\frac{1}{2}$ years, after having manifested a precocity and universality of genius, and a degree of moral excellence, of which there are very few examples on record. To this account a few comments were subjoined by the editor, some of which were founded on an inaccurate apprehension of the narrator's proceedings, and others thrown out as probably justified by the silence observed on points which were in themselves of considerable physiological importance.

In the two late numbers, however, of the Anthropological Magazine, the original memoir is reprinted and followed by some remarks correcting the errors into which we fell in our editorial note, and containing a good deal of the additional information which we at the time desiderated. These we have much pleasure in now subjoining, and we beg at the same time to express our regret for having in any way given pain to Mr John Hawkins—the benevolent protector of the boy—by whom the facts are narrated. Judging from the whole materials now

him the names and forms of the letters of the alphabet, and wondering that so very intelligent a child should yet be so dull, I pondered the subject well, and saw the gross absurdity of attempting to teach a child the letters, independently of their use, and concluded, that the alphabet ought to be placed at the end rather than at the beginning of the primer.

“ ‘I then began at once to spell and read to him, without requiring him to *commit either letters or words to memory*, but directed him to look at that part of the book to which I pointed, and repeat after me.

“ ‘His progress in learning was now so rapid, that in a few months, when little more than three years of age, he would take such words as Nebuchadnezzar, Belteshazzar, &c. and spell them for mere amusement; and in a few months more, when only about three and a half years old, would read the historical parts of the Bible with so just a feeling of the sense, that he generally placed the emphasis in the right place, and rarely had to spell a word, however long or difficult.’

“ Now the fair inference from this account is, that he was not set to *study* spelling or reading; and such was the fact; for, as stated, I spelled and read to him, and from that mode of proceeding, he learned to spell and read; and he generally learned to spell the word by my once spelling it to him, and shewing it to him in a book, and he seldom afterwards forgot it. His reading was principally in little books of his own choice, for his own pleasure, and at his own time. The Bible was never read by him as a lesson, but from the pleasure of the historical information, or as a part of family worship, and my reading to him certainly did not average three hours in the week. There was surely nothing exhausting in all this.

“ The narrative states, that he learned the names of the thirty-five organs of the brain in little more than an hour. The shortness of the time is a proof that it was not an extraordinary exercise; they could scarcely have been learned so soon by dint of mere study; in fact he did not study them; he merely read them and went to play, came back in a quarter of an hour and read them again, and so alternated his play and his reading five or six times, and they were rivetted in his memory. It was his own whim to learn them, and also to study their localities on a marked bust. The same may be said of his learning the classes and orders of Linnæus; they were principally learned by him in the fields and gardens, plucking flowers, inspecting the fructification, and asking me questions respecting them. He was never set to study them as a task; for I hold the principle of tasking to be injurious. My saying in the same paragraph, page 16, that ‘he would amuse himself for many hours together in making rude boxes and boats,’ ought to have prevented the

conclusion, that 'his brain was kept in a state of exhausting exercise.' Many other passages might be quoted from the narrative, to prove that he was not represented as being exhausted by study; but I content myself by shewing how he was treated in that respect. I supplied him with amusing and instructive books, and let him read when and what he pleased. I gave him specimens of minerals, and a set of drawers for them, and left him to his own choice to look over them, and inquire their names and characteristics. I gave him boxes of geometrical solids, on which the names were printed. I gave him tools of various kinds, to make whatever he pleased. When he gathered a number of flowers, and brought them to me, I shewed him how to ascertain the classes and orders of them. On a star-light night he would inquire respecting the stars, planets, and constellations; and I answered his questions. All he knew about chemistry he learned from conversations he heard, and listened to of his own accord, and from experiments shewn in his presence. He was not even set to study English grammar, his knowledge of which was acquired by merely reading the grammar over, without committing a single lesson to memory. What he knew of Latin and French, he learned in the same manner, and of his own choice; and it was not until we arrived at Vienna, that I appointed or allowed any tutor to instruct him. There I engaged for him and myself together, a teacher of the German language, but the child soon left me far behind him; and, as stated in the eleventh paragraph of the narrative, in a year he acquired almost a critical acquaintance with the language and many of its dialects; and, indeed, became my interpreter; and all this without any exertion worthy of the name of study, or the necessity of my having ever to remind him of his lessons.

"His knowledge of natural history was derived principally from pictures, from exhibitions, from the fields, and from the information elicited by his own searching inquiries.

"In short, he was kept in one continual round of amusement, and never required to study any thing. My system, derived from Pestalozzi, and confirmed by observation and reflection, being very similar to that of the excellent Dr Mayo, whose admirable work is reviewed in the volume from which I am now quoting my own observations on this most interesting child, page 254. At five years of age I took him on a visit to Dr Mayo, at Epsom, before the Doctor removed to Cheam.

"After the above statement, I do hope that the Editor of the Phrenological Journal will cease to regard me as a 'doting parent that kills the child,' and then charges the infanticide upon the 'precocity,' but will allow that my 'laudable motives' are not so 'sadly mistaken' as he imagined.

"I cannot conceive how the notion could arise in the Editor's mind.

tor's mind, that 'muscular exertion and air appear to have been neglected;' for the narrative says, 'that he knew the names, characters, and qualities of almost every tree, plant, and weed in my garden; and delighted in plucking the weeds as fast as they appeared.' Surely these things could not be learned without being much in the open air, nor the weeds plucked without muscular exertion sufficient for a child of four years old. The botanical inspection of flowers implies a good deal of running about the fields to gather them; the using of 'carpenters' tools for many hours together,' supposes considerable bodily exercise before he left London; and in Vienna, his labours in building ships, making anchors, chains, windlasses, swords, scabbards, &c., shew the reverse of bodily inactivity. In fine, my declaration, under the head of Constructiveness (page 25), that 'manufacturing was with him a passion,' and that 'it was painful to him to be idle,' ought to have led to a conclusion opposite to that of the Editor, namely, that great muscular exertion must have been used, which was really the case.

"The truth is, he was a very robust boy; that he took much muscular exercise in walking, working, playing; in climbing a pole which I erected for him in my garden; in raising himself on his hands upon parallel bars; and in various other gymnastic exercises, the means of which I carefully placed in his way.

"The Editor says (page 26), 'appetite, as is stated, was weak.' Under the term gustativeness, in the phrenological remarks (page 25), it is said, 'he was very moderate in the quantity of his food;' now I do not think that the expression moderate warrants the idea that the appetite was weak; in fact, his appetite was always good when in health, but never voracious; the term moderate was used to denote that quantity which is most conducive to a healthy condition of body, and he enjoyed excellent general health, with the exception of a disposition to be costive, which tendency was studiously and successfully opposed by attention to his diet, avoiding every thing of a binding nature, and giving him food of an opening quality, such as brown bread, gruel, treacle, honey, veal-broth, green vegetables, and a great variety of things of the like opening nature, but rarely administering medicines; his drink was rain water filtered through charcoal, with his dinner; and milk and water sweetened, with his breakfast and tea; and he was never plied with wine or strong drink, as many children are by their unwise parents and guardians.

"In reference to the passage in the note, 'although there was dissection of the body, there is no account of the appearances from which to infer the cause of death; although we trust still to get some information on this point, which, when it comes, will, in all likelihood, bear out our conjectures:' and, in

answer to the Editor's inquiries in his letter to the worthy Secretary of the Phrenological Society, which were the following : ' First, Of what did he die ? This is not mentioned. I observed his appetite failed him ; did he get the air and exercise which so young a creature requires, or was his tendency to study indulged to the injury of his health ? Second, Was the structure of the brain examined, and any thing particular observed ? Third, Was the texture of the skull loose and soft, or hard and firm ?'

" In answer to the above cited passage, and to these inquiries, I have to remark, in addition to what has been said before, as to appetite, health, air, and exercise, that he never had any serious illness but once ; when at seven years of age he had a severe inflammation of the brain, which confined him for three months under the treatment of two eminent physicians of Vienna. At one part of the time his life was despaired of, but he finally recovered health, strength, and activity ; and at the time we left Vienna, on the 26th of March 1829, he was deemed by the physicians to be capable of bearing the journey to London in a carriage, travelling only by day, and resting every night. In pursuance of their advice, I hired a very easy carriage and pair of horses to take us direct to Paris ; to go and stop, as the state of the child's health should indicate the propriety of the one or the other.

" As there was plenty of room in the carriage, I admitted two or three occasional passengers, who added much to the child's amusement ; and we travelled without the least fatigue about forty miles a-day, sometimes walking for pleasure and exercise. The weather was generally comfortable ; but in some deep ravines of the mountainous district, between Lintz and Salzburg, there was a good deal of snow remaining, which rendered the atmosphere there rather chilly, and perhaps laid the foundation of the child's illness.

" Proceeding in this manner, we reached Munich on the evening of the seventh day of our journey. The child had complained of sore throat on that day, as before mentioned, and he seemed a little feverish ; I therefore determined to remain the next day at Munich, and try to cure his sore throat. On our arrival I had him put to bed, wrapped flannel around his neck, and gave him a warm drink to promote perspiration. So far from the attack appearing serious, he was, as usual, attentive to every thing around him, and curious to explore every point of novelty which attracted his notice ; at nine o'clock, while the servant was making the bed, he heard the drum, and observed, that ' it was not beaten like the Vienna nine o'clock drum, which,' said he, ' is in this manner ;' imitating it with his fingers on the table.

He spent a restless night, and early in the morning I called in a physician, who immediately sent for another; and a surgeon and assistant, under their directions, took about nine ounces of blood from him. Although he had never before witnessed the operation of bleeding, yet he held his arm freely to the lancet, and looked on with all the coolness of an old man well accustomed to it. Twelve leeches were applied to the throat, and the punctures were kept open for two hours with warm wet cloths: after which, ten more leeches were placed on the throat, followed by warm wet cloths as before. Mustard plasters were put on the legs, and opening medicine administered; but all these efforts were fruitless; the child died before five o'clock in the afternoon.

"On dissection, the only appearance of disease, was inflammation of the larynx, very strong at the glottis; diminishing in intensity downwards, and terminating in an almost imperceptible degree of inflammation at the commencement of the lungs. The heart, brain, and every other part of the body, were declared by the physicians to be in a state of the most perfect health. They acknowledged, however, that the brain exhibited some indications of former inflammation; but the immediate cause of death was, the inflammation of the glottis producing suffocation, by rendering the passage too narrow for respiration.

The brain, the heart, the diseased larynx, the skull, and a cast of the head, are now on the table for the inspection of the society; from which will be seen, that the skull is firm, hard, and free from any marks of disease; and the brain and heart present the appearance of having ceased their operations in a state of perfect health; but the high colour of the inflamed larynx is no longer visible, the part having been preserved in an alcoholic solution of bichloride of mercury.

"I have not dissected the brain, but if the society should be of opinion that any new light could be thrown on the subject, by that procedure, I will with cheerfulness have it performed.

"In order to enable the society to compare the external development of the organ of language with the corresponding part of the brain and of the skull, I have placed on the table, a bust which I modelled from the cast, and from memory shortly after death; in which the eyes so strongly resemble the original, that, on shewing the miniature copy of the same in ivory, now also on the table, to numerous friends in Vienna, a year or two after the child's death, those who had known him, without a single exception, picked it out as his likeness, from among several ivory miniature busts, with which it was always exhibited promiscuously, as if it were a copy from the antique, as the others mostly were.

"My object in answering the searching queries of this indefatigably exploring child, on such a variety of subjects, was, to divide his attention, so that none of his faculties should be allowed an exhausting degree of exercise, which might have been the effect of confining him to a few pursuits. And in this mode of proceeding I conceive that I have acted in harmony with the mass of sound recommendation, contained in many papers in the *Phrenological Journal*.

"Whenever a conversation arose in his presence on any subject new to him, no matter how abstruse, he would for days, weeks, and even months afterwards, ask questions, ingeniously framed, to procure for himself a systematic view of the thing; and, until his queries were solved, his mind was fretted, and he often dwelt on the point with intense anxiety, reiterating the inquiry in various modifications, until he obtained the satisfaction he so ardently desired.

"Few of the statements in this paper rest on my authority; hundreds of persons in London, Rotterdam, Cologne, Frankfurt, and Vienna, have repeatedly spoken with astonishment of the extraordinary nature of his inquiries, and of the perseverance with which he strove to procure the information.

"It has been said that so precocious a child ought to have been sent into the country among persons of no intelligence, and be inured to athletic sports, in order that his brain might, as much as possible, remain inactive, until the body should attain some degree of maturity.

"If the object be to rear an animal, then society, where animal propensity is dominant, would be likely to effect the purpose; but such innate, moral, and intellectual powers as this child possessed, if placed under animal guidance, would in all probability be perverted without loss of force, and, therefore, an arrant knave of the worst species might result from such injudicious association.

"But if the object be to train the child into a man, then the greater the moral and intellectual power, the greater need is there of judicious, moral, and intellectual guidance, for such a mind will make progress of some sort, no obstacles can prevent it; if, therefore, it be not directed into the right way, it will go astray, and proceed in the wrong.

"In reviewing my mode of treatment of the child in question, now seven years after his death, and after much discussion at the *Phrenological* and this Society, I really do not see in what I have essentially erred; and I am persuaded, that if Providence should place me in charge of such another prodigy, I should follow pretty near the same course with him, being satisfied that my procedure was, in the main, correct."

ARTICLE XII.

AMERICAN ANNALS OF PHRENOLOGY. Nos. III. and IV. of Vol. IV. Boston, 1836.

OUR Transatlantic fellow-labourer continues his career of usefulness, but the two last numbers have reached us too recently to admit of any lengthened notice. As usual, Professor Caldwell stands in the very front of the battle, and, in an examination of the philosophical opinions contained in Lord Brougham's Discourse on Natural Theology, deals his Lordship such a shower of ponderous and well-directed blows as utterly to demolish almost every one of the physiological positions on which his extraordinary metaphysical arguments are founded.

We must confess, however, that the article which has most diverted us by the grotesque assumption of superior acumen, candour, and accuracy, is one by Mr Frothingham, on "New Phrenological Theories," in which, after telling us that he has "*but recently directed his attention to the subject, and of course does not feel sufficient confidence in his own practical skill to compare all its theories with nature,*" he facetiously assures us that the science is extremely imperfect; that its alleged facts are inaccurate; that the skulls of the North American Indians are remarkable for an organization the opposite of their manifestations, and that to overcome these difficulties he begs leave to "*SUGGEST A THEORY*" which "*has resulted in the discovery, as I believe, of at least four of the most important faculties of the mind, with their respective organs—has thrown new light upon many of those which have been considered as established—and, if true, must materially change the structure of the whole phrenological edifice!*" Verily these are great doings to be accomplished so speedily by one who has "*so recently directed his attention to the subject,*" as "*not to have acquired confidence in his own practical skill;*" but we infer that the transcendent genius of Mr Frothingham has enabled him to surmount at once the numerous difficulties which render *long* study and *great* practical experience necessary to other less gifted men; and to uproot, by a single flourish of his pen, the anxiously digested results of whole years of multiplied observations on the part of others. From this dawn of future greatness, we anticipate that in a few months more we shall receive the whole phrenological edifice from his hands in a state of accuracy and completeness which shall enable us to give up farther research, and save ourselves the trouble of continuing a journal, once destined for its advancement. But Mr Frothingham assures us that "*the happiest inspirations of great minds have been rejected as visionary, because above the common*"

mind;" and we stop lest we fall into this unlucky blunder in regard to his inspirations.

The first faculty discovered by Mr Frothingham is "Watchfulness,"—its organ is situated in the forward part of Cautiousness. The second is "Associativeness," and its organ is situated under Self-Esteem. After describing, *ad longum*, the peculiar function of this faculty, and the various ways in which it acts, the author, with a very rigid and edifying adherence to the principles of inductive philosophy, remarks felicitously that "*these and other manifestations are only predicted from the nature of the faculty. They have not been observed, there having been no opportunity for a very extensive observation of facts, owing to its recent discovery.*" Truly Mr F. must be a perfect treasure to our Transatlantic friends, and we almost wonder that he has not been appointed by the Government to draw up a geographical and statistical account of the Georgium Sidus, seeing that he could so easily "predict" its structure and political condition "from the nature" of the planet, and that "there are really no opportunities for a very extensive observation of facts" regarding it, "owing to" the confounded distance from us at which it is placed.

Mr Frothingham has still his two other faculties and organs to account for. The one, he hints, may probably be named "Sagacity;" but he defers it and its companions until he "has made more extensive observations of their development and manifestations in individuals," after which he promises to present us with the most encouraging and the most practical system of mental philosophy which the world ever saw, and there we leave him.

Mr Frothingham fears that phrenologists will look upon his "theories," as he calls them, with "suspicion," &c., but as we are seriously still uncertain whether his whole lucubration is not intended as a clever mystification, and it has, at all events, afforded us much entertainment, we shall not fall into the snare by treating it as meant for philosophy. As a whole it contains traces of talent and thinking which, with due cultivation, greater modesty, and more extended knowledge, might do the author credit, and ultimately entitle him to rank higher than he is ever likely to do by such exhibitions as the present. With these remarks, dictated, we assure him, with no unfriendly spirit, we take leave of him, and trust that, before his next appearance, he will have considered the propriety of observing nature on a more extensive scale, before so unceremoniously substituting his own "THEORIES" for the mass of facts already collected by other observers.

ARTICLE XIII.

DISCUSSION ON PHRENOLOGY AT THE ROYAL ACADEMY
OF MEDICINE AT PARIS.

Most of our readers have heard of the famous four days' discussion on the subject of Phrenology, which occurred last spring in the French Academy of Medicine, and which was trumpeted about at the time as a death-blow to the science. In the January Number of our esteemed contemporary the *Medico-Chirurgical Review*, we find an abstract of the sentiments expressed by the different speakers, and willingly avail ourselves of the facility thus afforded, of transferring it to our own pages.

We need scarcely add, that we attach no great value to discussions of this kind, apart from a direct reference to facts, and that on this as on most similar occasions, both parties left the matter precisely where they found it. Speaking generally, we cannot say that either of them manifested that minute and familiar acquaintance with the details of the science, which alone can enable any one to obtain a conviction of their truth, and to expose the sophistries of the opponents. Some of the speeches, such as those of Broussais and Adelon, were, however, very effective, so far as they went; but what follows is only a meagre outline of them.

"Here closed the discussion on the causes of apoplexy; and the other topic of debate—Phrenology—was introduced by M. Bouillaud. He took a rapid view of the rise and diffusion of this new system of mental philosophy, and shewed very ably that its leading principles had been recognised by many of the wisest physiologists long prior to the time of Dr Gall. M. B. did not hesitate to avow, that while he believed in the general axioms of the science, he was very far from yielding an assent to all its details, as expounded in any publication on the subject.* For example, he did not think that the feeling of sexual desire, or, as it is denominated, *Amativeness*, has any

* In his recent work on *Medical Philosophy*, M. B. has expressed sentiments to the same effect. His words are:—'Without doubt a good deal remains to be done to determine the precise seat of the intellectual and moral faculties and their instruments; without doubt the new science is still wrapped in obscurities and uncertainty. But the foundation of the doctrine rests upon such a numerous collection of facts and observations, that it is indestructible.' He then alludes to the incredulity of M. Magendie, who ranks Phrenology with necromancy, alchemy, and astrology, and has stated his opinion in this sentence:—'The efforts of that pseudo-science reduce themselves to assertions which cannot bear examination for an instant.' M. Bouillaud in reply says:—'In vain Cuvier and Napoleon opposed the doctrine of Gall. It triumphed over their resistance, and by a revenge worthy of itself, it makes use of the heads of these two great men to support its own principles. After such a victory, what can Phrenology have to fear from any other enemy?'

connection with the cerebellum,—the function of which is in his opinion to preside over and regulate the equilibrium of the muscular system in walking and in other movements of the body.

“ M. Rochoux was delighted to hear his honourable confrere make so liberal an avowal of his sentiments, and he was anxious thus publicly to call attention to the concessions now elicited ; for the main scope of his attack on Phrenology was directed against that mania for the localization of mental faculties, which induced Dr Gall in the first instance to portion out the brain into twenty-seven different sections, and his followers to add nine additional sections to the number.

“ M. Broussais stated that he was not prepared to defend all the opinions either of Dr Gall or Spurzheim, or of any other phrenologist. Many of the details of authors on this, and indeed on every other branch of science, are necessarily imperfect and inaccurate ; but such an objection cannot invalidate its leading principles and conclusions. These have been deduced from a patient examination of facts, which no mere reasoning can gainsay, and which most satisfactorily establish this important truth, that certain mental developments are always associated with certain cerebral formations. This ‘ empiric ’ fact is the foundation of all phrenological reasonings, and notwithstanding the indiscreet and ignorant haste of many disciples of the science, its essential doctrines are based upon the most incontestible observations.

“ M. Rochoux has rather contemptuously asked us to shew him those various organs of the brain, which exercise different functions, and which are alleged by us to preside over different powers of the mind. No discreet phrenologist has ever professed to point out the different portions of the brain, as if they were separated and distinct organs. Like the faculties of the mind itself, they are intimately and indissolubly connected together, and it is impossible to ascertain the exact boundaries of each division or cerebral organ. Of late years, little has been said by the opponents of Phrenology of that argument, drawn from the want of perfect correspondence between the inner and outer surfaces of the cranium ; an argument which was so boastfully dwelt upon twelve or twenty years ago. The phrenologist does not require the measurement to a line, either in point of extent or of prominence, of organs, before he can estimate the prevailing character of any individual. The abandonment of this weak objection shews that a very great change has taken place in the sentiments of those who are still hostile to Phrenology. It has been said by some that comparative anatomy is opposed to our science ; for example, that the brain of many of the lower animals very much resembles that of a

human being, and yet their mental endowments are few and feeble. This argument, when examined, lends but little support to the opponents of Phrenology. It is very doubtful that man possesses a much greater number of mental feelings and faculties than many of the lower animals. In them they exist probably '*en germe, en esquisse*.' No one will deny that they are endowed with the feelings of love for their offspring, and of attachment to their abodes; and we think that it is equally true that they possess a memory for persons, things, and places, as well as a perception of sounds and distances. Who will deny that pride, or some feeling close akin to it, is felt by the cock surrounded by his feathered dames, by the pigeon strutting about with puffed-out neck, and the pea-cock displaying his gorgeous train? Is there not something almost human in these exhibitions of Self-Esteem and Love of Admiration?—Glimmerings of Ideality (?), of judgment, of Comparison, of Veneration, of Hope, &c. are often observed in some animals, and most conspicuously in those which approach nearest in organization to the human development. Does not the lively joy of the dog, when unkennelled for the chase, betoken something of the workings of an imagination which recalls to him the pleasures which he has already enjoyed? and are we wrong in saying that this most faithful animal has a feeling of veneration (we do not say theosophy) for his master?

"We have heard lately a great deal of certain direct proofs—as they have been called—drawn from the measurement of the heads of notorious criminals—against the truth of Phrenology.

"The language which has been used by our opponents must satisfy every candid inquirer that they have not at all understood the doctrines which they were assailing. It is rare that a murder is committed from mere love of murder, or from the direct impulse of the feeling of Destructiveness. Other baneful passions too frequently urge on to the commission of this most dreadful of sins. Jealousy, revenge, avarice—these are often the prompters of the murderous deed. Again, it has been urged against Phrenology, that very few scientific men, distinguished for their attainments in mental or physical philosophy, have announced their assent to the truth of its doctrines. This, indeed, is a most feeble objection. In all ages, the '*savans*' have been the most opposed to the diffusion of new discoveries. The dread of ridicule, envy, the reluctance to be taught any subject by younger and less lettered men, and a host of other feelings—such are very often the true causes of their hostility.

"M. Broussais is ready to admit that Phrenology is far from being yet complete as a phrenological or descriptive system of

all the cerebral functions, and that the localization of certain faculties is still imperfect. What remains to be done may be easily accomplished by the careful and repeated examination of the heads of those who are conspicuously distinguished for any particular mental endowment. There may be difference of opinion as to the exact limitation of certain organs; but such a discrepancy on smaller matters affords no solid objection to the fundamental positions of the science.

"That education and the exercise of particular faculties will, at least in youth, induce a larger development of the corresponding cerebral organs, than if no such education or exercise had been undergone, M. Broussais has repeatedly assured himself by minute observation; but we are to remember that it is only when there is no remarkable predominance of any one organ, that the brain takes the direction given by cultivation.

"The next speaker was M. Adelon, one of the most scientific members of the Academy. He observed that M. Rochoux was not quite correct in stating that in apoplexy, whatever may be its seat, the whole of the brain suffers, and that the general symptoms are the same in all cases. Cerebellar apoplexy has been very frequently diagnosed by the presence of involuntary erections of the penis.*

"With respect to the labours of the phrenologists, M. Adelon very justly remarked, that surely they are quite as deserving of scientific examination as the attempts of anatomists to measure the facial angle and the area of the cranium in animals—attempts which have engaged the attention of such men as Camper, Daubenton, Cuvier, and Söemmering. All these inquiries rest on the same foundation, and have the same object in view—to discover, by the formation of the (anterior part) head, the amount of intelligence possessed. Moreover, every series of experiments on the brain and nerves performed, within the last fifty years, has tended to establish a plurality of organs. The divisions of Bichat, the researches of Sir Charles Bell, Magendie, Flourens, Fovillé, &c. all tend to this result, and the conclusions which these eminent physiologists have come to, have met with very general assent. If Phrenology has more lofty pretensions, aiming, as it does, to penetrate

* "M. Recamier, well known as a most experienced and able physician, stated, as the result of his experience, that, when the cerebral hæmorrhage was on the anterior lobes, the organs of speech were very generally paralyzed. M. Bouillaud confirmed the truth of this remark, and observed that the loss of speech was in some cases of apoplexy unaccompanied with any other mental infirmity. It is necessary not to confound the mere paralysis of the tongue with the loss of the faculty of speech. The movements of the tongue may be quite free, and yet the patient cannot articulate a word. The cause of this special aphonia is unquestionably some lesion of the anterior cerebral lobes."

into the depths of mental philosophy, it encounters, we must acknowledge, difficulties numerous, great, and perhaps insurmountable. But be it remembered that it professes to have been built, and still to advance on the results of cautious, minute, and repeated observation; and if so, although the subject may be still encompassed with difficulties, it does not become the man of science to reject or despise its labours. The 'point culminant' in Phrenology is, first to determine the number of faculties, and then to ascertain the precise localizations of these faculties or endowments. *Perhaps we shall never arrive at exact and indisputable truth on such questions*; and this is the only real objection which can be made. In conclusion, M. Adelon expressed his opinion that it was rash and unphilosophical in any one to profess his contempt of Phrenology, until he has minutely and most attentively studied the subject. Few medical men have leisure enough to devote to such difficult inquiries as those involved in Phrenology.

"M. Amussat professed himself favourable, on the whole, to the conclusions of Phrenology. He denied the assertion of M. Rochoux, that the history of apoplectic symptoms affords any just objection. Many cases of the disease seem to confirm the doctrines of M. Gall. With respect to the alleged inconsistency of the cranial development in Fieschi and other notorious assassins with their well-known characters, M. Amussat was of opinion, that many incorrect statements had been made by the friends, as well as by the foes of Phrenology. It has been asserted that the head of Fieschi is not to be distinguished from that of a moral man. Now, in truth, it is (shewing the mould) the head of a miserable wretch. It is of small dimensions. The organs of Pride and Firmness—the most prominent and 'motivant' features in Fieschi's character—however, are of considerable size. The lateral depressions in a murderer's head may at first sight surprise us; but be it remembered, that Gall has never said that a person may not be an assassin 'sans l'organe du meurtre.' The conformation of the head of Fieschi accounts for, if not his last and most atrocious crime, the profligate dispositions of his general character.* His destructive propensities were by no means so conspicuous as his inordinate and unprincipled love of notoriety. It did not appear that he had been urged on to his villanous acts by revenge or bloodthirstiness. He had no cause of resentment against the king or any of his attendants; but leading for a length of time an idle, unoccupied, and unprincipled life, his heart had been open to some vague, and almost undefinable Satanic whisperings of personal distinction.

* In our opinion the head of Fieschi is in all its parts one of the most striking illustrations of the truth of Phrenology.—(EDITOR, P. J.)

MM. Maingault and Capuron—the former a most meritorious surgeon, the latter a distinguished physician-accoucheur—spoke in favour of Phrenology. One remark which M. Capuron made deserves to be noticed. “I cannot,” said he, “believe that the same organ is the seat of the reasoning principle which controls the passions, and of these very passions which so often overthrow the reason.”—*Arch. Gener.*

“M. Ferrus, in the introductory lecture to his course of clinical instruction * on mental disease, at the great lunatic establishment of the Bicêtre, thus expresses his opinion of the value of Phrenology :—

“ ‘ The method of studying and treating insanity recommended by MM. Gall and Spurzheim appears to us to be by far more philosophical than any other, and, if pursued with discretion, likely to lead to most beneficial consequences.’ ”

ARTICLE XIV.

CASE OF JOHN JENKINS, who was Executed for Murder at Sydney, New South Wales.

To GEORGE COMBE, Esq.

Dear Sir,—I now beg your acceptance, in my brother's name, of casts of the heads of Dr Wardell and his murderer Jenkins ; should you think them worthy a place in your collection. The following is their history:—My brother Mr Archibald Johnston, Surgeon, R. N. then of H. M. S. Hyacinth, procured them at Sydney, shortly after the execution of Jenkins, and brought them here on the 26th December last. It is believed they are the only copies that have reached Europe, very few having been taken, at an expense to subscribers of one guinea each, for the encouragement of an Italian artist recently settled at Sidney.

My brother regrets that an Australian newspaper, giving an account of the trial, and commenting on the atrocious character of Jenkins, has fallen aside ; the details in the printed notice herewith are, however, quite correct.

Trusting that these may be of some use in confirming the truths of the valuable science you so ably advocate, I remain, &c.

A. K. JOHNSTON.

8. FREDERICK STREET, EDINBURGH,
18th January 1837.

* The example of M. Ferrus deserves to be imitated in this country. Insanity, like every other disease, can be advantageously studied only at the bedside of the sick. Hitherto all our public lunatic establishments are no better than so many ‘*musea clausa*.’ Now that medical jurisprudence is more attended to, we may hope that the study of mental disorders will occupy a prominent place in medical instruction.

Mr Combe returned his best thanks for the casts, which are very valuable, and we hope that the example of Mr Johnston will not be lost on other medical officers who may have it in their power to promote the interests of science.

Cerebral Development of John Jenkins.

This head is remarkably small, the great preponderance of the brain being in the posterior region.

Amativeness large.
 Philoprogenitiveness large.
 Concentrativeness full.
 Adhesiveness large.
 Combativeness very large.
 Destructiveness rather large.
 Alimentiveness large.
 Secretiveness full.
 Acquisitiveness large.
 Constructiveness moderate.
 Self-Esteem enormously large.
 Love of Approbation full.
 Cautiousness very small.
 Benevolence rather large.
 Veneration large.
 Firmness full.
 Conscientiousness rather small.
 Hope very large.

Wonder large.
 Ideality small.
 Wit full.
 Imitation large.
 Individuality large.
 Form full.
 Size large.
 Weight large.
 Colouring rather small.
 Locality full.
 Number small.
 Order full on right side, small on left.
 Eventuality full.
 Time full.
 Tune full.
 Language moderate.
 Comparison full.
 Causality full.

This statement indicates the relative proportions of the organs, but does not convey a complete idea of the peculiar character of the development. The head altogether is on a small scale, yet many of the organs are remarkably prominent. The chief characteristics are—an enormous Combativeness, Self-Esteem, and Hope, which, combined with a very deficient Cautiousness, would lead to an utter egotism and recklessness of disposition. There is so much intellect, Benevolence, Veneration, and Hope, that the individual could not have been destitute of some of the higher qualities of human nature; and we regret that so little is known of his history and character. The head is remarkably high for its size. The two hemispheres are unequally developed. Altogether the head, from its diminutive size, striking protuberance of particular organs, and singular combination, is remarkable. Small size in the brain is indicative of mental feebleness; yet this being, from his enormous Self-Esteem, would conceive himself a man of gigantic power, both physical and mental; and, from the great size of this organ, combined with his large Combativeness, very deficient Cautiousness, and large Hope, would dare every thing in the complete confidence of success, however much the enterprize might exceed his physical or mental capacity.

We abstain from making any remarks on the head of Dr

Wardell, as he may have relatives to whose feelings our observations might prove disagreeable.

The following account is extracted from a Sydney newspaper sent to us by Mr Johnston.

Murder of Dr Wardell at Sydney, and Execution of his Murderers.

The first direct accounts of the murder of Dr Wardell, the barrister, at Sydney, New South Wales, to which we alluded some time back, on the authority of Van Diemen's Land papers, were received in town yesterday; the *Harmony*, by which former accounts were sent, and which sailed on the 30th of September, not having yet arrived, fears of her safety are entertained. By the *Sydney Gazette* of November 10. we see that the murderers, John Jenkins and Thomas Tattersdale, were tried on the Friday preceding, and found guilty on clear and unquestionable testimony, given by an accomplice named Emanuel Brace, a lad only eighteen years of age. They were all prisoners of the Crown. Brace, having fled from his master to the bush, met with Jenkins, who had escaped from an iron-gang to which he was condemned for previous outrages: he was armed with a musket and cutlass; they agreed to act together, and committed several robberies for food and clothing. They afterwards fell in with Tattersdale, who had been a former shipmate of Jenkins, and whom they persuaded to join them, which he did, after robbing his master, to whom he was assigned. They then in concert committed several more robberies, living in bark-huts, which they erected, and feeding on their spoil. On the morning of the murder they were in a hut, which they had erected in the woods on Dr Wardell's estate. Dr Wardell, in riding over his lands, came upon them, and, calling upon them to surrender, Jenkins seized upon a piece of rock and threatened him, directing Tattersdale at the same time to fetch the musket; this Tattersdale did, and Jenkins seizing it, went up to Dr Wardell, who exclaimed—"Oh, for God's sake don't do that!" To which Jenkins replied—"By Heaven I will," and going close to him, fired the piece into his body. The horse immediately galloped off with his master on his back. It was supposed the unhappy gentleman afterwards fell from the horse, which went home to the paddock, and the next day his body was found close to an oak tree, to which he had crawled. The prisoners were subsequently apprehended, when Brace turned evidence for the Crown, and detailed all the facts of their association to the moment of the murder, in which he was fully confirmed by other witnesses. All the witnesses for the Crown having been examined, the prisoners were found guilty. On being called on to say what they had to offer why they

should not receive the judgment to die, Jenkins vociferated that he had a good deal to say on the subject ; he considered that he had not had a fair trial ; in the first place, that old woman (the barrister) had been shoved in upon them for the purpose of leading them to their destruction ; he could have conducted his own case with a better chance of justice ; and, to shew the manner in which the feeling was against him, the jury were not out a second when they brought him in guilty ; but he did not care for either judge or jury, or the whole Court, whom he would shoot with the greatest pleasure if he had his gun there ; he became very violent, and struck the dock with his hand, quite infuriated. The Chief Justice then proceeded to pass the sentence in the most imposing manner, but had scarcely finished the last sentence when the culprit Jenkins, with a ferocity unparalleled, rushed forward towards his unhappy companion, who stood at some distance from him in the dock, and struck him two violent blows, and in all probability would have added another victim to his murderous appetite, but for the police, who rushed into the dock, and with much difficulty secured him.

When Jenkins was led out for execution, he addressed the felons in the yard to the following effect :—" Well, good bye, my lads, I have not time to say much to you ; I acknowledge I shot the Doctor, but it was not for gain, it was for the sake of my *fellow prisoners*, because he was a tyrant ; and I have one thing to recommend to you as a friend ; it is this, if any of you take the bush, *shoot every tyrant* you come across, and there are several now in the yard who ought to be served so. I have done several robberies, and for fear that any innocent man should suffer on my account, I have made a confession to the gaoler, and given such marks and tokens as will prove it was I that committed the acts. I robbed a man named Mills at Kissing Point, and also a man on the Liverpool road named Farrell, and a man at Liverpool, whom *I stabbed* ; he may be since dead for aught I know ; I have heard that he was missing since that time, and it is most probable he has been eaten by the native dogs ; I have told where the property is, in order to shew that I have told the truth. I have not time to say any more, lads, but I hope you will all *pray for me*." This address being ended, the rope was secured round his neck, and the other culprits shook hands, but Jenkins turned away from Tattersdale with disdain, and said something like " let every villain shake hands with himself." At the solicitation of the Rev. Mr MacEncroe he consented to shake hands with him, and as he approached his unhappy companion in crime, who appeared to be absorbed in prayer, and making pious ejaculations, he said, Come, come, my lad, none of that crying, it's no use crying now ; we'll be all *right* in ten minutes time ;" he then gave him

a hearty shake of the hand, and took his stand. The clergyman having retired, and the arrangements being complete, the platform fell, and the world closed on one of the most ruthless assassins that ever infested the Colony.

ARTICLE XV.

TRAITÉ DE PHRÉNOLOGIE HUMAINE ET COMPARÉE; Accompagné d'un Magnifique Atlas in Folio de 120 Planches, contenant plus de 600 Sujets d'Anatomie Humaine et Comparée, d'un parfaite execution. Par J. VIMONT, M. D., &c. 2 tomes 4to. Paris and London : 1836.

THE title of this work, which we have copied at full length, contains a eulogium on the Atlas to which we fully subscribe. It is really "magnificent" and "perfect in execution." The arrangement of the objects might have been rendered more convenient by grouping together those that are related, or which serve to illustrate each other by contrast; the references might have been rendered more complete, and the descriptions more ample and explicit; but, in respect to correctness and beauty of drawing, the Atlas appears to us to be nearly unparalleled in anatomy and physiology.

The "Traité" itself, consists of two quarto volumes of letterpress, the first containing 481, and the second 654 pages. It would be vain to attempt writing a review of such a work that would at all convey an adequate idea of its merits and contents; we intend, therefore, to notice, in a succession of Numbers, those portions of it which are particularly new, and which will most interest the phrenologists of this country, reserving our commentary on the work itself till the close, when our readers will be able to judge of the justness of our remarks.

Dr Vimont adopts a classification of the organs entirely different from any previously used. We do not either admire the logical principles on which his arrangement is founded, or perceive the utility of it; nor do we anticipate that it will be generally adopted. At the same time, as we have repeatedly expressed our opinion that the period is not yet arrived for accomplishing a perfect classification, and that it is more advantageous, on the whole, for phrenologists in general to follow one order of arranging the faculties, although not perfect, than for every author and lecturer, in the present state of the science, to introduce one of his own, we forbear to discuss the particular merits or demerits of that which Dr Vimont has presented. We shall proceed at once to the new matter regarding the faculties and organs which he brings to light. The first of these is the

ORGAN OF SELF-PRESERVATION.

(Organe de la Conservation.)

On this subject, Dr Vimont's remarks are the following :— Self-preservation is an innate sentiment which belongs to all animals. All the functions, in the sense in which the word is daily used, contribute, without doubt, to the preservation of the species ; but the expression is here employed in a much more limited sense, namely, to designate a mode of acting of the cerebro-nervous system, having all the characteristics of a fundamental faculty. It consists in an impression purely instinctive, which prompts animals to fly or to keep themselves on their guard, when any external circumstances appear to threaten their existence. This faculty is one of those which manifest themselves at an early period in animals. Dr Vimont is disposed to believe, that to it must be ascribed the squalling of the infant when newly born, and the cries which young animals emit when some unexpected object alarms them. It was the sudden disappearance of certain species at the least noise, or at the aspect of an object which they saw for the first time, which led him to entertain the idea that their manner of acting in this case might depend on a fundamental faculty. He had seen foxes, rats, mice, cats, disappear with the rapidity of lightning, at the unexpected sight of a person, or on hearing an unwonted sound. Whence, said he, can such a mode of action arise ? What can cause these animals to apprehend that their life is in danger, since many of them have never experienced any thing which can lead them to entertain any dread from these external occurrences ? Nevertheless, their first action is to fly...

In the beginning of his inquiries, and for a considerable time, he entertained the opinion that the conduct of these animals might depend on a considerable development of Secretiveness or Cautiousness, but numerous observations destroyed this supposition. Experience demonstrated to him, that animals possessing little Secretiveness and little Cautiousness, allowed nobody to approach them without great difficulty, and had a singular tendency to fly or to preserve themselves. As observations made on individuals of the same species were best adapted for reaching the truth, he devoted himself to the study of the habits of several animals which he reared under his own eyes, and to keeping an exact account of their most remarkable faculties. From 1824 to 1825, he observed with care the conduct and actions of a dozen rabbits, the offspring of the same mother. He used to set them at liberty twice a-week in a garden, and to dedicate two hours to surveying them. One of them struck him more than all the others, by the habit which it had of flying with astonishing rapidity every time he approached it ; it

is difficult to believe how frequently he saw it strike the ground suddenly with its paws, probably to give notice to its companions, and then instantly disappear. Nevertheless it was neither more cunning nor more circumspect than the others; it was even the one which he seized most easily when he wished to put them into their boxes; he had, on the contrary, great trouble in catching several others, which succeeded in avoiding him by a thousand detours. What, then, he asked himself, can give to this animal the idea of flying off with such rapidity? Why, then, is there in this respect so great a difference among twelve animals produced by the same mother, and all under the influence of the same external circumstances? Without doubt all these animals have a tendency to run away, but all do not fly with the same promptitude. Nevertheless, in reflecting on the conduct of all animals, he saw that this action was general, that in some species it was more striking than in others, and that if it was less apparent in tame animals, the difference was to be attributed to the influence of external circumstances in diminishing the activity of this faculty so as to render it difficult to recognise its manifestations. Let us attempt, for example, to seize in its cage, a bird which we have possessed only for a short time, and we shall be astonished at the efforts which it will make to escape; after an interval of time, more or less extensive, this animal which at first took to flight at the slightest movement, will come and present itself to any person who wishes to take hold of it.

Being nearly certain that there exists in animals an instinctive sentiment or faculty which prompts them to self-preservation, or to shun every thing that threatens their existence, it only remained for Dr Vimont to determine what might be the cerebral part which was the seat of this feeling.

The examination of the skulls of a great many animals was of no use, because, as has been already remarked, it was necessary that observations should be made first on individuals of the same species. He therefore devoted all his attention to the examination of the skulls of the rabbits which he had observed with so much care. The skull of the rabbit which took to flight with so much rapidity, compared with the skulls belonging to two others of the same litter which allowed him to approach them readily, did not, at the first inspection, offer any thing remarkable to his observation. It was not so with their brains. Viewed on the upper surface, these three brains differed very little, one excepted, in which the cerebellum was more developed. The case was very different when the base of the brain was examined. There was a striking difference in this region between the brain of the rabbit which had been the subject of his observations and the other two. In it, the portion of the brain,

AA, Plate LXXVII. fig. 1, was twice as large as in the other brains.

As he had particular reasons for preserving untouched four of the nine other rabbits, he could examine only five more brains, and he affirms that he did not find a single one the size of which, in the part before indicated, equalled that of the rabbit which fled so fast on his approach.

Immediately after making this observation, he carefully examined the brains of all the animals which he had preserved in spirits of wine, and also their skulls at the situation where this cerebral organ is placed. It was easy to do this on the base of skulls of the very numerous species which compose his collection. It would be difficult, he says, to convey an idea of the pleasure which he experienced in discovering that all the animals which naturally have a tendency to fly with rapidity at the approach of any one, or by the influence of external circumstances, were precisely those which presented this part of the brain in the highest degree of development, such are the ape, the fox, the badger, the cat, the marten, the poll-cat, the marmot, the hare : It is enormous in the stag and roebuck.

He then describes its situation in birds, but we find it impossible to convey any adequate idea of its locality without the aid of the plates to which he refers.

The region of the cranium in which this organ in quadrupeds is lodged is the lateral sphenoidal fossa (CE, fig. 3, Pl. V. *bis*). In man its situation is the same (id. pl. fig. 2). It occupies in the latter all the portion of the sphenoidal bone marked 2 and 3, fig. 6, Pl. XI. *bis* ; the anterior half of the cerebral surface of the temporal bone indicated by No. 3, id. pl., fig. 8. Its innermost surface will cover the two anterior thirds of the upper face of the petrous portion of the same bone.

An old gunner who died in the Val-de-Grâce was one of the greatest bullies that ever existed, and so regardless of his life that he exposed it daily in numerous duels. In his skull, presented to Dr Vimont by Dr Gaubert, the region before specified is not only very narrow, but has little depth. He has compared this skull with others in his possession in this region, and the difference in extent and depth is well marked. He has not met with the skull of any person who had a propensity to self-destruction without disease of the brain, and therefore cannot speak of the development of the organ in suicides.

It has never been remarked, says Dr Vimont, by any one before him, at least in a physiological sense, that the internal root of the olfactory nerve loses itself in the portion of the brain which he considers to be the organ of self-preservation. All the world knows that when a person faints, the best restorative is to make him smell strong liquors and aromatics. May not

the organ of self-preservation be in this manner immediately stimulated, a kind of sentinel, destined, if we may use the expression, to re-act on the other organs?

Dr Vimont is strongly disposed to believe that the sentiment of fear, which Gall attributes to want of courage, and which Spurzheim made to depend on Cautiousness, may be, on the contrary, an affection of the organ of self-preservation. When a man considers his existence threatened by a body above him, he, by a movement truly instinctive, stoops his head and forms a kind of arch with his back. This movement coincides with the situation of the organ. Persons who feel uneasy on the top of a tower or steeple crouch down in the same manner. Dr Vimont believes that the disagreeable impression which they then experience is referable to an affection of the organ of self-preservation, and that it is this affection which gives rise to the gesture above described.

He considers that the sphere of action of the faculty is more extensive. It gives a character of egotism to the mind. He has constantly found more egotists among bachelors than among married persons. In France he finds more egotists among priests than in any other class of society, which he attributes in part to the retired life which they lead. Contempt of life and generous actions should depend on a small development of the organ, particularly if other faculties are in a sufficient state of development. He regards a panic as an affection of this organ.

This is an abridged translation of Dr Vimont's section on this organ. He observes that Drs Gall and Spurzheim have said nothing about this organ,—that the first mention made of one analogous to it is in Mr Combe's System, third edition, published in 1830, in which an organ of love of life is spoken of, and a case reported by Dr A. Combe in support of it is referred to. He made his own observations prior to 1830, and is, therefore, by his own account, the discoverer of the organ.

On this point we remark, that the rabbits, from whose brains he made the discovery, were, according to his own statement, alive in 1825; Dr A. Combe reported his case in the Phrenological Journal, vol. iii. p. 471, under the date of 17th May 1826, and that the convulsion which he there mentions (although with less precise accuracy than Dr Vimont) as probably manifesting the love of life, is the same with that indicated by the latter as the organ of self-preservation. The general idea of the existence of such an organ, and its probable situation, were therefore, pointed out by Dr Combe so early as May 1826, although they did not appear in Mr Combe's System of Phrenology till 1830. We are quite satisfied that Dr Vimont's own observations are original, and accord him the merit of havinn

discovered the organ for himself ; but, as he is a great stickler for the merit of discovery, we consider it right to state the foregoing facts.

We differ from Dr Vimont in regarding this as the organ of fear. We have many positive facts that satisfy us that Cautiousness is the organ of this sentiment ; but we observe farther, that extreme fear is often experienced in circumstances in which our own life is not in the least danger. If a bank in which persons have money deposited is suspected of being about to fail, we see the most dreadful panic seize the creditors, although the loss of the deposited sum would not endanger the preservation of any one of them. When some mothers have a child absent from home, they live in constant fear or alarm about its safety, till it returns, and yet they never feel that their own preservation is in danger.

If we suppose the organ of Cautiousness to produce fear, then this organ, acting along with Acquisitiveness, would produce the fear of losing money ; acting along with Philoprogenitiveness, the fear of losing a child ; along with love of life, the fear of death, or anxiety to avoid objects and situations which may induce death ; but we cannot conceive the simple sentiment of the love of life manifesting itself in fear of objects that do not place life in the least degree in danger.

We can conceive that a strong love of life, by concentrating all the faculties on self, may be one element in egotism, but it does not appear to us to be the faculty of egotism in particular. This feeling arises from the predominance of the organs of Acquisitiveness and Self-Esteem. If these preponderate, we cannot conceive the individual being generous and disinterested ; but we can imagine the organ of self-preservation to be very large, and yet if co-existing with large organs of the moral sentiments, we discover no necessary discrepancy between their free scope in benevolent actions, and the most ardent desire to avoid danger to life.

ARTICLE XVI.

CASE IN WHICH THE POWER OF CORRECTLY APPRECIATING MAGNITUDE AND DISTANCE WAS IMPAIRED.

To GEORGE COMBE, Esq.

LONDONFIELDS, 24th Nov. 1836.

MY DEAR SIR,—Will you allow me to inquire whether you consider a phenomenon peculiar to my *vision* as explicable upon any phrenological principles. The phenomenon to which I allude consists in a sudden and involuntary alteration in the apparent size of objects presented to sight. Instead of their

usual and real size, they appear *exceedingly small*, as if, in distance, but *very clear perspective*. No effort of volition can produce this condition of sight, neither can any remove it. It is not, as far as I can perceive, induced by any peculiar state of health. The time during which it continues is variable, sometimes an hour, sometimes more, sometimes less. I need hardly say that the state is *painful*; painful, however, only on account of the *supernatural* feeling, as it were, which it induces; the sounds of voices, &c. being heard as coming from the usual distances, while the actual utterer seems immensely removed. My own hand appears, when I am thus affected, no larger than a half-crown; and all distant objects are proportionably distant in appearance, but still *perfectly distinct*. I may mention, that my sight is what is termed *long*—to a remarkable degree. I read a page of Small Pica print at three feet distance with perfect ease. You will particularly oblige me by any explanation which you can give of the phenomenon. No surgeon to whom I have mentioned it can, in the least degree, account for it. I may observe, that the affections mentioned in pages 396 and 397 of the third edition of your "*System*," have been familiar to me from my earliest youth, but I do not conceive that the above-mentioned condition can have any reference to the *same* cause, since, in that condition, every object maintains its usual position and steadiness. The only organ affected appears to be *Size*. Not finding, as I in some degree anticipated, any allusion to a case of the kind in your last edition, I take the liberty of thus mentioning my own, not knowing, however, whether it is absolutely *singular*. I remain, &c.

JS. TOULMIN SMITH.

Mr Combe wrote to Mr Smith, requesting some additional information, and received the following answer, dated 8th February 1837.

MY DEAR SIR,—I will add, in reply to your queries, that I perceive colours, forms, and order with perfect correctness, and estimate weight and momentum successfully. In fact, my organs of Form, Size, and Weight, Order, and Locality, are all large; and I have ever experienced very considerable readiness with my pencil, though circumstances have prevented my cultivating the graphic art. I never experienced the slightest difficulty in either estimating or drawing *perspective*. The affection is only occasional. I remember its occasional presence for many years. When it is present, it lasts from half-an-hour to an hour at a time,—never more, frequently less. The last time it was present was in July last. During its continuance it never varies; nor do I remember that there has, at any time, been any variation in the mode of the affection, between its

presence at one time and at another. It is difficult to answer the query as to *physical sensations*. The whole accompanying sensations are unpleasant on account of the supernatural condition, as it were, of *sounds* of usual actual magnitude proceeding from *objects* in such apparent extreme distance. That the senses do not rectify each other, is, by the way, well proved from the fact, that, though I take an object in my hand, and perceive by *touch* its actual dimensions, my visual perception remains unaltered, and it is impossible for me to reason myself into seeing objects of their real size. Though perfectly aware of the falsity of the perception at the time, the phenomena are all equally manifest, as if the perception were correct; that is, I perfectly recall in memory, and at this moment see mentally, before me, the objects of this diminutive size. Distant objects, such as an extensive prospect, appear as if viewed in an exceedingly minute *camera obscura*. As to my digestion, it requires some care to preserve it good, but I am not aware that the affection accompanies any peculiar condition of digestive functions; and, certainly, irregularity in those functions is not accompanied in general by that affection. I am, &c.

J^S. TOULMIN SMITH.

Remarks by George Combe.

In my System of Phrenology I have hazarded the opinion, that the organ of Size is that which perceives distance and perspective; and this appears to have been a peculiar affection of that organ, the precise nature of which it is difficult to explain. Dr Vimont admits the organ of Size, and agrees with Dr Spurzheim, and phrenologists in general, in regard to its situation at the internal angles of the orbits of the eyes; but he conceives that he has discovered a separate organ for taking cognizance of distance, situated between Size and Weight. He divides the old organ of Size into two, and calls the portion next the nose the organ of Size, and that next to Weight the organ of Distance. The facts detailed by Mr Smith seem to shew, that the same organ takes cognizance, both of size and distance. The size of an object is estimated by the distance between the lines formed by its different surfaces; and the distance between two objects is estimated by the extent of space intervening between the nearest boundaries of each. We call our perceptions *size*, when our attention is directed to the distance between the surfaces of a *whole figure*; and *Distance*, when it is directed to the space intervening between two objects. In both instances, however, we estimate the distance between points or lines; and the mental perceptions are fundamentally the same. Mr Smith's case remains a problem for solution.

ARTICLE XVII.

SHORT COMMUNICATIONS.

Perception, Conception, Imagination, and Memory.—In treating of the modes of activity of the intellectual organs, Mr Combe writes, "Thus Perception is the lowest degree of activity of any of these faculties excited by an external object; and Conception and Imagination are higher degrees of activity, depending on internal causes, and without the interference of an external object." This is the view commonly received by phrenologists, and it seems to be correct in respect to what is said about an external object; but the varied condition of mind should perhaps be regarded as a difference in kind, not in degree merely. If a man use his legs successively in walking, running, hopping, and leaping, such are variations in the kind of motion, not in the degree of it. The same appears to hold good in the different kinds of mental activity mentioned. If Imagination were only a higher degree of activity, it would seem very like a necessary implication, that one able easily to imagine things should also be particularly well able to perceive them, and that the same circumstances which excite imagination should also render perception much more complete. Yet is not the reverse of this the fact? Some writers of fiction readily imagining scenes or things that never existed, are by no means accurate in their perception of realities, and some of our most exact observers of reality are little prone to imagination. Stimulating drinks and the febrile state of body attending catarrhs or other complaints, also often increase the force of imagination, while they blunt or derange that of perception. And (which is deserving of notice) our perceptions are usually most exact in the morning, while imagination is decidedly most energetic towards night. For the present, therefore, would it not be more advisable to avoid reference to degrees of activity, in attempting definitions of these mental states or processes, and to consider perception (or, more generally, sensation) merely as a state of mind supposed to depend on activity of brain induced by something affecting the nerves of the senses; and conception, imagination, and memory, as states of mind supposed to depend on some action of the brain induced by an internal condition yet unknown? Conception and Imagination are frequently used as equivalent terms, but there seems to be a distinctness in their proper significations. Imagination implies the creation of ideas altogether self-derived. Conception is the creation of ideas supposed to represent those of another person. Thus, we *perceive* a scene which is before our eyes; we *conceive* one which is described to us; and we *imagine* a new one which neither we ourselves nor any one else ever did perceive. Memory, as defined

by Mr Combe, implies a renewal of "impressions previously received, attended with the idea of past time, and consciousness of their former existence." Probably this is as good a definition of memory as can be given at present; yet there is a difficulty in accounting for the "idea of past time," since this would imply that the activity of the organ of Time was a requisite for memory in any other organ. I suspect that memory ought not to be mixed up with the other three modes of manifestation here spoken of, but that it is much more closely allied to consciousness and the sense of resemblance. Some injuries and diseased states appear very materially to derange consciousness, memory, and the sense of resemblance, while the powers of perception, conception and imagination are comparatively intact, or, at least, not affected in equal degree.—H. C. WATSON. [Mr Chenevix has thrown out some suggestions on some of the foregoing points, in the *Foreign Quarterly Review*, No. III. p. 45.—Ed.]

Letter from C. T. Wood, Esq.—"In a review of Mr Watson's *Statistics of Phrenology* in Tait's Magazine, the reviewer asks, "What periodical troubles itself with Phrenology?" I should answer, there are many favourable to it, and give phrenological notices from time to time; among these are the *Mechanics' Register*, the *Anthropological Magazine*, the *Analyst*, and the *Spectator*. There are also many newspapers favourable to the chief of sciences, at the head of which may be mentioned the *Scotsman*, but what I now wish to call the more immediate attention of your readers to, is the following notice in the *Spectator*, the soundest, most consistent, liberal, and influential political journal in the island. The article is headed—

"PEEL'S BUMPS."

"Dr Epps, in a phrenological view of the progress of criminal legislation, to be found in the *Christian Physician* for the current month, has this passage on the great Tory charlatan of Tamworth:—"Sir Robert Peel has taken much credit to himself for amending and ameliorating the criminal law; and, in reference to some of the offences already referred to, the following were some of these much praised emendations:—Stealing to the value of 40s. was punishable with death, he made it to the amount of L. 5: which actually is a sum, compared with the value of 40s. in the time of Queen Anne, less in value, and, therefore, instead of increasing the value of a man's life, he diminished it. He perpetuated the punishment of death as applicable to forgeries. [Punishment of death is barbarous, and wholly unjustifiable under any circumstances.] An examination of Sir Robert Peel's organization will explain all this. The speech Sir Robert Peel delivered at his installation as Lord

Rector of the Glasgow University, affords one of the best illustrations of the nature of that organization."

We are curious to see a phrenological estimate of the character of Sir Robert Plausible. The phrenologists would advance their science in popular estimation, and afford amusement as well as instruction, by gauging the capacities of some of our legislators,—sounding the depths and shallows of their understandings. Expert practitioners of Phrenology, we understand, do not need actually to feel the protuberances of the cranium, or measure the skull; they carry the callipers in their eye, and can penetrate through the thickest crop of hair, and any wig but a judge's or a bishop's. "The gallery of the House of the Commons would be a capital place for surveying the skulls of senators when they doff their hats to address the House, and a clew might thus be got to the occasionally inexplicable freaks of some few well-meaning men. The thing has been done already, we believe, in a few individual cases; but Dr Epps, who illustrates his lectures on Phrenology with living examples in public men, should follow out the exhibition regularly on a large scale. Who knows, but at some future time, not very distant, a candidate for the suffrages of a constituency may be required to append to his address, a phrenological testimonial of his capabilities for performing his senatorial duties. The state of the *poll* would then be the true index of the characters of the candidates."—No. 442, p. 109. This is a pretty good proof of the growing popularity of the science, which, like every other truth, is gradually winning its way into general esteem and admiration, notwithstanding the opposition of enemies and the still more detrimental indiscretion or ignorance of friends. Such a book as Mr Scott's late extraordinary and disgraceful attack on Combe's *Constitution of Man*, would do more to bring odium on the phrenologists than all the pert chirping of the poor benighted opponents of the science. Mr Watson would be doing a great service to the cause by exposing piecemeal the blunders of Mr Scott, whether arising from ignorance or from something worse. C. T. Wood." [Note.—The Spectator appears to us to write in this instance in ridicule of Phrenology, and we do not consider it benefited by notices of such a character as this. There is more sober truth in the idea itself thrown out by him, however, than he is aware of; but Phrenology must be much more extensively known before it can become practically useful in this and many other ways.—ED. *Phren. Jour.*]

"London Popular Educational Association, formed for the purpose of assisting Mutual Instruction Societies, and other popular Educational Institutions. J. J. Hawkins, Esq. president.

The want of some association of this kind has been long felt by the members of these Societies, and it is therefore unneces-

sary to urge any thing in its favour, in order to recommend it to the notice of those for whose benefit it has been formed. The objects it will endeavour to accomplish, are as follows:—*1st*, To form a collection of books of reference, apparatus, and diagrams, for the use of the members of the association. *2dly*, To procure lecturers for societies that may require them; and *3dly*, To collect information of the best plan for conducting popular educational societies. Persons wishing to join the society, and associations requiring assistance, are requested to apply by letter (post paid) to the secretary. G. H. Lewes, hon. secretary, 7, Edward Street, Hampstead-road.

"This association appears to be formed on the model of the "Society for aiding the general Diffusion of Science," established in Edinburgh on 21st December 1835, but which was attacked so fiercely by the directors of the Philosophical Association, that its members dropt their scheme, and Scotland has, in consequence, been left without any central body for facilitating the arrangements between country audiences and qualified lecturers on science. We are happy to see that the plan has been adopted in London, and hope that no senseless ebullition of jealousy, from any quarter, will obstruct its usefulness in the sister kingdom.

The following passage in Owen Feltham's *Funebre Venetianum* (Lusoria, 1677), is interesting, from its recognising the brain as the organ of the mind, and the impossibility of attaining direct information on the subject by dissection.

—————"As well we may
Trace yonder fish, which way she swam at sea,
Find the arrow's flight, or by dissection tell
Fancies that in that living brain did dwell."

W. B. H.

Suggestions as to observing Development.—To the Editor of the *Phrenological Journal*.—Sir, As the study of Phrenology is one of the most interesting and important duties of man, its practice cannot be too much improved or simplified. To give any just decision as to the character of an individual by manipulation and inspection, requires a lengthened course of observation, and an amount of time, which can be afforded but by few. If any means could be devised to ascertain the size of the organs by a practical and easy method, much extension would be given to the science.—I believe, too often in estimating development by the present method, that the length of cerebral fibre or *prominence of an organ*, is stated to be a *large development*, when, in fact, it is not so; and the extension of fibre, or *extent of surface of an organ*, estimated of a *non-development*, when, in fact, it is a development. As frequently the extension of an organ counterbalances one apparently more prominent.—

From such erroneous decisions the science, unquestionably, in numerous instances, gets materially injured and retarded, and many individuals who before would give credence to its doctrines, become heedless of further inquiry, by adopting, or a friend for them, this futile method. This, of course, relates more particularly to the hasty judgments of the would-be "eager-to-shew-off tyros." Indeed, so frequently have I seen it adopted, that it remains to me no longer conjectural. Whereas if the method of judging of the extension in conjunction with length of fibre be adopted, no such disappointments would be met with.—I here suggest a method which I have found successful in estimating the size of the organs in numerous instances, yet which requires to be handled by those who have more time than I at present can afford, to establish, if correct, the method of proceeding. I take the greatest distance of the organs with a pair of straight or curved compasses or craniometer, whether it be from the *meatus auditorius externus*, or the *expansion* of the organs from each other. Taking Conscientiousness as an example, the greatest distance from the ear would be at the juncture of the opposite organs (supposing no other organ intervened between it and the *falx*), or a distance from its juncture with Firmness; taking Adhesiveness, its distance would be where, or nearly so, it joins Concentrativeness and Philoprogenitiveness. The greatest expanse, taking the two former, would be where the one borders on Cautiousness, &c., the other, where it joins Combaticiveness and Cautiousness, &c; so of the rest. The greatest distance, or expanse, must be noted in inches and parts of inches—take the length and breadth of the surface of the organs, square it, and add to the length. In taking the single organ, or rather those which the *falx* only immediately separates, the squares of the surface must be added to the length. As regards the *frontal* organs, draw a line vertically from the ear; another moveable, horizontal, and at right angles to the first; another to proceed from the exterior expansion or the *supposed juncture* of the organs; resting the compasses on the horizontal line, mark the distance from the vertical line to the line proceeding from the organs; as before, square the surface and add to the length. The greatest elongation indicates the proportionate size of the organs. In some cases there are particular developments whose centre rises considerably above the circumference (often along the perception ridge) and *vice versa*. In all such instances I suspend the line where I imagine the juncture would be, did nothing separate them but the *falx*. A friend, when I was developing the plan to him, proffered as a theory, relating to the frontal organs, "May not an oblique line passing from the ear to the line proceeding from the organs, be substituted for the horizontal line, its length being noted, and the square of the organs

added ; thus dispensing with the vertical line ?" Another " May not the expansion, as in other organs, if it exceed the distance from the vertical line or ear, be noted, the square of the organs added to it ?" It appears to me neither of these theories holds as practical, nor indicates the proportionate size of the organs. I submit it to your important decision, and await the result through the medium of your valuable Journal.—Your obedient servant,

G. T. BLACK.

On the use of Languages to a Physician.—Extract from " an Introductory Lecture delivered in the University of London, on Thursday October 2. 1828 ; by John Conolly, M. D. Professor of the Nature and Treatment of Diseases."

" Very great advantage will attend your being acquainted with some of the modern languages, particularly with French and German, and the number may easily be increased when one or two are well learnt. Nor should I omit to mention an attention to the correct use of your own, of which many men, proud of their classical attainments, and many medical writers have been but too negligent. A man may assuredly be a very good physician or a very good surgeon, without any knowledge of Greek or Latin, of French or German ; but if he cannot write his own clearly or speak it correctly, his writings and language will cast perpetual ridicule on what is considered a learned profession. And let the British student remember that the English tongue yields to none in copiousness, in strength, and in variety, that it is spoken more extensively than any other ever was, and has been employed to express the thoughts and deeds of men who will bear a comparison with the foremost men of all antiquity."—P. 26.

Antiphrenological Facts.—To ROBERT OWEN, Esq.—My Dear Sir, I beg to refer you to Article II. of the 50th number of the Phrenological Journal, and to request the favour of your informing me what you know about the incident therein mentioned by Mr David Dun, teacher at New Lanark, who said, that a gentleman accompanying you examined the head of J—— G—— N——, and affirmed that he had very bad dispositions, and that I was understood to be the gentleman in question. As I have no knowledge of the occurrence, I should wish to be informed who the gentleman was, and what he really did. I am, &c.

GEO. COMBE.

23. CHARLOTTE SQUARE, 12th December 1836.

To GEO. COMBE, Esq.

My Dear Sir,—I know nothing of the circumstances to which you refer in your letter of yesterday's date. So many thousand individuals visited the mills with me, that it is impossible, at

this distance of time, to conjecture what gave rise to any part of Mr Dun's statements. Yours, my Dear Sir, very sincerely,

ROBERT OWEN.

EDINBURGH, 13th December 1836.

New Machine for taking Casts.—"A new machine for taking casts has been lately invented by a gentleman in Paris, and is called the Physiognotype. It 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. The instrument 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 mark which it produces is a fac simile of the mould. Nothing is wanting; even a vein on the temple is faithfully represented."—*Edinburgh Courant*, Saturday, 12th November 1836.

Coleridge's Opinion of Phrenology.—Craniology is worth some consideration, although it is merely in its rudiments and guesses yet. But all the coincidences which have been observed could scarcely be by accident. The confusion and absurdity, however, will be endless, until some names or proper terms are discovered for the organs, which are not taken from their mental application or significance. [What does this mean?]
—*Table Talk of S. T. Coleridge*, June 24. 1827. We are amused at the tone of confident wisdom in which remarks like these are made by men utterly ignorant of the subject of which they talk.

Effects of inequality of the Cerebral Hemispheres.—Dr Spurzheim says in his work on Insanity, "A friend of Gall has the right side of his forehead half an inch higher than the left, and he feels and complains bitterly that he cannot think with the left side. At Dublin, a gentleman whose forehead on the left side is about four lines less developed than on the right, often feels headach on the defective side, and assured me that he is conscious of not thinking with that side."

Dr Spurzheim on Changes of Cerebral Development.—"I can speak with certainty from repeated observations. The changes of cerebral development, when the individual powers are exercised, or kept quiet, are astonishing. In the former case individual organs increase, and in the latter they not only stand still in growth, but sometimes become absolutely smaller."
—*American edition of View of the Elementary Principles of Education*, 1832, p. 131.

Power of Fancy.—The subjoined passage, from the Ordinary, by W. Cartwright, a play published in London, 1661,

Sc. 37, is curious, from its correspondence with some of the views regarding the influence of the mind of the parent on the condition of the child, expressed in No. VII. of the Appendix to Mr Combe's Constitution of Man.

Hearsay. "I do presume you know the strength and power that lies in Phancie.

Caster. "Strange things are done by it.

Hear. "It works upon that which is not yet.

The little Æthiop infant had not been

Black in his cradle, had he not been first

Black in the mother's strong imagination.

"Tis thought the hairie child that's shewn about

Came by the mother's thinking on the picture

Of Saint John Baptist in his camel's coat.

See we not beasts conceive as they do fansie

The present colours plac'd before their eyes?

We owe pyed colts unto the varied horsecloth;

And the white partridge to the neighbouring snow.

Fancie can save or kill," &c.

W. B. H.

Scott's "Position and Grouping of the Cerebral Organs."—The Editor of the Phrenological Journal should disclaim on the part of phrenologists, certain statements respecting the position and grouping of the cerebral organs, which have appeared in Scott's Harmony of Phrenology. The enemies of Phrenology are not slow to hold up the errors of individuals as so many arguments against the science, and as proofs of ignorance or carelessness in the general body of its supporters. Mr Scott appears never to have seen a brain divested of the skull and its membranes, and has thus fallen into the error of supposing that the external lines drawn on the marked bust correctly indicate the *connexions* of the cerebral organs. Mr Scott should learn that there are two connected brains within each skull, constituting one double brain; and that the organs which appear to run along the middle line, according to the external markings, are in reality no more in the middle of each brain (hemisphere), than the little finger is in the middle of the hand. If we place our hands together edgewise, the thumbs being outward, the little fingers are then in the middle of the two hands; and should we cover both hands with a single glove, while thus in juxtaposition, an external mark, for the place of the little finger would make them appear to be in the middle, supported on each side by the ring-fingers. This is a pretty correct illustration of what occurs in the position of the two brains or hemispheres. The organs marked along the middle line of the head or skull, and externally represented as one single organ each, are two organs completely separated by a strong membrane, and each of them lying on the inner edge or side of its own hemisphere. Thus In-

dividuality, Eventuality, Comparison, &c., though in the middle line of the head, are on the sides of each brain; almost as much so as the little fingers are on the sides of the hands. Hence, it is very incorrect in Mr Scott to say that Causality "lies on each side" of Comparison, and that Veneration is supported on each side by Hope. Whatever countenance may be given to this, by the external markings of a skull, it is not correct; for Causality lies only on one side of Comparison, and Veneration is supported by Hope only on one side, its support on the other side being a great vein and membrane. In describing the positions of the organs, for the purpose of enabling a student to determine their relative places on the head or skull externally, such descriptions are convenient and unobjectionable; but Mr Scott founds certain speculations, touching the connexions of the mental faculties, upon such an imaginary central position of Individuality and other organs. This is absurd. H. C. W.

Reported Renunciation of Phrenology by Mr G. Combe.—To Geo. Combe, Esq. SIR,—A rumour having been prevalent here during the past week that you had renounced the principles of Phrenology as laid down in your System, which has now reached its fifth edition, I am requested by a circle of friends (who have read your different works on that science) to make the inquiry. I am induced to trouble you personally, as a line from you would place it beyond a doubt. GEORGE FOURNESS, 28 High Street, Birmingham.

ANSWER.—*Edinburgh, 23 Charlotte Square, 12th January 1837.* SIR,—I am favoured with your letter without a date, and hereby authorize you, not only to contradict the report which you mention, that I have renounced the principles of Phrenology, but to add, that I have given up the profession of the law, in order that, during the remainder of my life, I may be able to dedicate more time and exertion to the cultivation and diffusion of that science.

Your's, GEO. COMBE.

ARTICLE XVIII.

SHORT NOTICES OF BOOKS.

Remarks on Instruction in Schools for Infants. By Archibald Prentice, Member of the Manchester Literary and Philosophical Society. Fourth Edition. Bungay: J. R. & C. Childs. 1834. Pp. 61.

Although the merits of this little work have been extensively appreciated, as the number of editions through which it has passed sufficiently shews, it did not till very lately happen to fall under notice. In Scotland, we suspect, its existence is not so

well known as it ought to be, and we therefore do not scruple to embrace even this late opportunity of recommending so excellent a production to our readers. Mr Prentice is a true philanthropist, an eloquent and impressive writer, and a man of sound practical judgment. He takes a correct and philosophical view of the legitimate purposes of infant schools; and his work, while it shews the utility of such institutions, is at the same time highly calculated to remove the prejudices which their advocates still find it necessary to encounter. It cannot be too widely circulated.

The Human Brain, its Configuration, Structure, Development, and Physiology; illustrated by References to the Nervous System in the Lower Orders of Animals. By Samuel Solly, Lecturer on Anatomy and Physiology in St Thomas's Hospital, &c. with twelve plates. Post 8vo. Pp. 492. Longman & Co.

This work displays extensive knowledge of the subject of which it treats, and is written in a clear, precise, and practical style. Mr Solly has adopted and warmly proclaims the superiority of the anatomy taught by Drs Gall and Spurzheim, and he has copied and described several of their plates. He has also shewn that the anterior columns of the spinal cord, dedicated to motion, are connected with the cerebellum by fibres running directly from that part of it at which the fibres of the *corpora pyramidalia* decussate to the crura of the cerebellum. The origin of these fibres is represented in one of Dr Spurzheim's plates of the brain, but he does not trace them onward to the cerebellum as Mr Solly has done. This discovery accounts for the injuries of the cerebellum inflicted by Flourens having disturbed the power of motion in the animals on whom he operated. Any severe injury or irritation inflicted on a nerve at its upper extremity, affects the functions of all the portions of it situated below the point of the injury; and the whole motor tract lies below those fibres connecting it with the cerebellum. This discovery also gives great weight to Dr Broussais' statement, that the cerebellum commands and regulates muscular motion to the extent necessary for executing its function of reproduction, but no farther.

Although Mr Solly has adopted the phrenological anatomy of the brain, he does not adopt our physiology of this organ. He is silent on this subject until he arrives at his last page, in which he says, "Whether or not individual portions of the great hemispherical *ganglia* (hemispheres), the last centres of power to be considered, perform separate offices in correspondence with the different kinds of mental manifestations, as stated by the phrenologists, I candidly confess my incompetence to venture even an opinion. The whole subject of Phrenology

appears to me of far too much importance to be discussed without the most rigid and impartial examination of the immense body of facts adduced in support of it; and this I have not hitherto had leisure to undertake. I shall, therefore, only say, that so far as I am acquainted with the subject, I do not see it as otherwise than rational, and perfectly consistent with all that is known of the functions of the nervous system." P. 471.

This acknowledgment is so far well; but we ask Mr Solly, whether he could not have found time to peruse the statement of the principles on which Phrenology is founded, as given, within a reasonable compass of letter-press, in Mr Combe's System, and to pass a judgment whether these were or were not sound, and at least equally promising of success, as means of determining the functions of the different parts of the brain, as the methods on which he has dwelt at considerable length, under the head of "Physiological Inferences from Pathology."

Lectures on Popular Education. By George Combe. Second Edition.

Post 8vo, pp. 128. MacLachlan & Stewart, and John Anderson junior, Edinburgh; Longman & Co., and Simpkin, Marshall & Co., London.

The circumstances attending this new edition of Mr Combe's Lectures are explained in the preface as follow:—"The following Lectures were first delivered in April 1838, at the end of a course of Lectures on Phrenology; and again in the month of November of the same year. At the request of the Directors of the Philosophical Association, they were then published, in the form of a pamphlet. Immediately after their appearance, they were, with my permission, reprinted by Messrs W. and R. Chambers, in their widely circulated journal. At a later period, a part of them was incorporated into the text of the "Constitution of Man." In these circumstances it seemed unnecessary to reproduce the original lectures in a separate form, and they were allowed to remain for some time out of print. Having been informed, however, that the public continued to demand the work, the present edition has been prepared, and I have endeavoured to make some corrections, additions, and improvements, which I hope may increase its value. In its present form it contains a condensed and comprehensive summary of the chief objects which should be aimed at in popular education.

"Since these lectures first appeared, a great improvement has taken place in popular education, and the principles and practices which they recommended, although at first assailed with ridicule, have already, to a considerable extent, been carried into effect with the happiest results. I allude particularly to the diffusion of useful knowledge by lectures on science to popular audiences. There is an increasing demand throughout the country for such instruction, and lecturers are much

wanted. So far back as 1796 Dr Beddoes published 'A Lecture introductory to a course of popular instruction on the constitution and management of the human body,' and in 1797 lectures on animal and human physiology were delivered to a miscellaneous audience of both sexes at Bristol. When I ventured to revive this practice in my own course of instruction, and recommended it in these published lectures, it was objected to as improper and dangerous. The subject, however, has proved so attractive and useful, that already it has ceased to be a novelty, and numerous successful courses of lectures have been delivered on it in various parts of the country."

In this edition Mr Combe has introduced some remarks on "prizes and place-taking at school;" and in the appendix he has given an account of Mr Anderson's seminary for young ladies, in Gayfield Square, and of the Scottish Institution for the education of young ladies, in 15 Great Stuart Street, both of which are actually conducted on the principles which he espouses, and have met with great encouragement from the public. A valuable letter from John Robison, Esq. Secretary to the Royal Society, Edinburgh, also forms part of the appendix, and which gives a very clear and practical description of an improved method of teaching drawing.

A Key to Phrenology, containing a Brief Statement of the Faculties of the Mind, the History and Practical Uses of Phrenology. By a Member of the Phrenological Society. With a Plate. 8vo, pp. 14. John Anderson junior, Edinburgh; John Macleod, Glasgow; and Simpkin, Marshall & Co., London.

This pamphlet gives a brief outline of the phrenological organs and their functions, which on the whole is correct and clear. There are, however, some errors in composition, and a few in doctrine, which the author would do well to correct. We do not mean to advert to all that we have observed, but notice the following as examples. Acquisitiveness does not give a propensity to accumulate "*knowledge*." The organ of Constructiveness is not situated "*anterior*," but *lower and anterior* to that of Acquisitiveness. Self-Esteem and Love of Approbation are *not* apt to lead to "*envy*," unless Benevolence and Conscientiousness be relatively deficient. Love of Approbation does *not* "*create bashfulness*." It is one element, along with Cautiousness and Self-Esteem, in producing bashfulness. We differ from the author in his account of Genius; but we wish his "*Key*" every success.

Internal Evidences of Christianity deduced from Phrenology. By John Epps, M.D. Second Edition. E. Palmer, London; John Anderson junior, Edinburgh. 18mo, pp. 108.

The first edition of this work appeared in 1827, as the pro-

duction of "Medicus;" but to the present very neat edition the author has prefixed his name. His leading propositions are,—1. That man is so constituted as to be constrained to worship some being; 2. That man is endowed with certain faculties enabling him to decide upon the object to be worshipped; 3. That this object must be such as the faculties, unbiassed, must approve of; 4. That the God of Christianity is the only such being; 5. That man can do nothing good in the sight of God, and that Christianity recognises this inability; and, 6. That the means to be employed to maintain and preserve God's favour are in conformity to the character of man as necessarily evil. Although the author's arguments do not always seem to us conclusive, we have no doubt that his work will prove acceptable to many pious phrenologists.

MISCELLANEOUS NOTICES.

ABERDEEN.—A Phrenological Society has been instituted here, which is proceeding successfully in the prosecution of the science.

BIRMINGHAM MECHANICS' INSTITUTION.—On Thursday evening last, the 9th instant, Mr J. Toulmin Smith delivered the first of a short course of lectures on the important and interesting science of Phrenology. The theatre of the Philosophical Institution, which seats about 400 individuals, was full in every part, many persons standing in the passages. The audience was exceedingly attentive, and apparently deeply interested. The subject was illustrated by numerous casts, and anatomical and other drawings.—*The Birmingham Journal*, 11th Feb. 1837.

CANADA—MONTREAL.—Dr Barber delivers the last lecture of his course on Phrenology, this evening. We are sure that we only give expression to the feelings of all who have heard him, when we state our regret, that his lectures had not been more numerous. He has invested Phrenology with an entirely new interest to us, and we dare say to most of his auditors, by his felicitous exposition and illustrations of the subject, and by demonstrating its bearing upon questions of the most vital importance to the human race.—It is, we understand, Dr B.'s intention to leave this city for Quebec on Friday next, where he will deliver a course of lectures on Phrenology. We are happy to learn that, should sufficient encouragement be offered, he will, on his return from Quebec, give a second course here.—*Montreal Courier*, 22d Sept. 1836.

CLOMEL.—Mr John Wilson of Dublin lectured on Phrenology here in December 1836.

COWES.—It affords us much pleasure to state, that on Friday last Mr Stebbing of Southampton delivered an introductory lecture on the science of Phrenology, before the members and friends of the Literary and Scientific Society.—From the *Hampshire Independent* of 31st December 1836.

DUNDEE.—We have received a letter from "a Subscriber," dated Dundee, 23d January 1837, requesting us to give notices of the state and progress of animal magnetism; but we profess ourselves ignorant of the subject, and find our pages more than filled with our own science. We refer our "Subs

scriber" to the Edinburgh Chronicle, in which he will see reports of Mr Colquhoun's Lectures on Animal Magnetism.

EDINBURGH.—Mr G. Combe continues his course of lectures in Dr Mackintosh's Medical Theatre, Argyle Square. It is attended chiefly by medical students and practitioners.

Mr W. B. Hodgson is lecturing with much success to a large class of operatives in St Cecilia's Hall, Niddry Street.

Mr Robert Cox, who has for several years acted as Editor of the Phrenological Journal, has been elected Secretary to the Philosophical Literary and Commercial Institution of Liverpool, where he has gone to reside. We regret his departure, but hope that he will enter on a sphere of more extended usefulness. He has been under the necessity of leaving Edinburgh to enter on his new duties rather unexpectedly, and has left the present Number to be concluded without his able assistance. If the communications of any of our correspondents are overlooked, we beg of them to receive his absence as an apology for the omission. We copy the following notice from the *Scotsman* of February 4:—"ROBERT COX, Esq.—In consequence of this gentleman being about to leave Edinburgh and settle in Liverpool, a party of his friends entertained him in the London Hotel, St Andrew's Square, on Thursday evening. About fifty gentlemen were present, including several votaries of science and literature. James Simpson, Esq. advocate, so well known by his book and lectures on education, presided, supported by George Combe, Esq., and Dr Murray, Lecturer on Political Economy. Mr Maclaren, Editor of the *Scotsman*, acted as croupier, supported by Robert Chambers, Esq., and Dr Farquharson. Mr Cox now holds an office in the Liverpool Literary and Scientific Institution, and this circumstance gave a character to the toasts, among which were the following:—'Mr Simpson, and the cause of Education'—'Mr Combe, and Phrenology'—'Institutions for Popular Instruction'—'The Liverpool Literary Institution'—Mr Chambers, and the Cheap Press'—'The Croupier, and the Newspaper Press'—'The Lecturers who are engaged in Popular Instruction'—'The improvement of the Working Classes.' The gentlemen who united to pay this mark of respect to Mr Cox, consisted of men of all parties; and the 'feast of reason and flow of soul' was kept up till a late hour."

GLASGOW.—Since our last publication, Mr Sydney Smith has delivered six lectures to a very large audience of operatives in Glasgow.

GREECE.—The *Minerva*, of 26th July 1836 (an Athens journal), contains a phrenological description of the character of the Hydriots.

HAMPSHIRE PHILOSOPHICAL SOCIETY.—On Friday last week, W. C. Engledue, Esq., M. D., delivered a second lecture on Phrenology, before the members at the Assembly Room. The lecturer proceeded in his subject with a masterly hand, levelling with powerful reasoning those arguments which are in general brought forward against the science.—*Hampshire Advertiser*, 2d Dec. 1836.

On Friday se'ennight, W. C. Engledue, Esq., M. D., delivered his concluding lecture on Phrenology.—*Hampshire Advertiser*, 17th Dec. 1836.

MANCHESTER.—An invitation has been sent to Mr George Combe to lecture in this town in April 1837, and arrangements are now in progress for his appearance.

NEW YORK.—A friend has brought to us from New York a "Phrenological Chart, representing a Synopsis of the science," by O. S. and L. N. Fowler, assisted by S. Rishman, which is remarkably comprehensive and correct in its descriptions of the organs. The cuts are not so good. A handbill also announces "Lectures on Phrenology and Examination of Heads" at New York, commencing on 12th October 1836, by the Messrs Fowler, who style themselves "Practical Phrenologists." They throw out the following chal-

lance :—"The lecturers pledge themselves to demonstrate the *truth* of Phrenology in any, and in every honourable way which the ingenuity of the incredulous may devise or propose. They throw out the challenge to opponents and disbelievers, boldly, and without *condition or reservation*. They will meet opposition publicly, and on *any ground*—either by fair argument, or by an application of the principles of the science to the heads and skulls of animals, or to the heads of individuals selected by the audience—either with or without *their eyes covered*—and let Phrenology stand or fall by this test." From a variety of testimonials appended to this challenge, they seem successfully to redeem their pledges. The "Washington Mirror" of 28th November 1835, contains two letters by Mr O. S. Fowler in defence of Phrenology against an attack made on it by "Maxwell Macdowall, M. D. of Baltimore, in the Baltimore Literary and Religious Magazine." The letters are well and temperately written, and shew a creditable knowledge of the science. We are glad to see so much knowledge and ability, combined with practical skill, as these gentlemen exhibit. They announce a new organ, "whose function is to furnish its possessor with an intuitive knowledge of *human nature* ; or, to enable him readily to perceive the *state of mind* or feeling possessed by others, and thus successfully to adapt himself to, and operate upon, the minds and feelings of his fellow-men." The situation of it is "between the reflective organs upon the one side, and Benevolence and Imitation upon the other." Mr L. N. Fowler says he has made numerous observations and experiments on it, and is disposed to believe in the above function. We presume that he means that the new organ is situated *above* Comparison and Causality, and *below* Benevolence and Imitation. We observe certainly, that men whose foreheads are very high in that region—such were the heads of Shakspeare and Sir Walter Scott—have an extraordinary, and almost intuitive, talent of becoming acquainted with human nature ; but we have hitherto regarded that configuration as indicating a large development of the ascertained organs there enumerated, and have not yet had an opportunity of observing whether there are organs in this region hitherto unknown.

NEWCASTLE.—We learn from a correspondent, that in addition to the Newcastle Phrenological Society repeatedly noticed in our pages, another was established about the same time, in connexion with the Literary, Scientific, and Mechanics' Institution, and has since continued to have monthly meetings. In June last the number of members was forty-one, four of them medical gentlemen ; and the Society possessed a collection of casts and skulls, purchased by subscription. The office-bearers are the following : John Fife, Esq. and D. Macallum, Esq. Presidents ; Mr Luke Clennet and Mr Newton, Secretaries ; Messrs W. Clemment, R. Pattison, T. Atkinson, J. L. Thornton, George Downie, and T. Scott, Committee. An Essay on Phrenology is read at each meeting by one of the members. The meetings are very well attended, and the members generally seem to take much interest in the science.

PORTSMOUTH PHRENOLOGICAL SOCIETY.—During last winter session, the evenings for lectures were all occupied, and frequently the lectures were attended by crowded audiences. The session was commenced by an introductory lecture from Dr Scott of Haslar, "on the growth of bone, referring more particularly to the foetal skull, and its formation from birth to puberty." The following six evenings were occupied by the Secretary Dr Engledeue with elementary lectures on Phrenology, which he means to extend during the next session. Two evenings are filled up by Mr Barnard ; one with a paper on Ideality, the other by a paper entitled, "Some observations on the human mind, with remarks on Phrenology." Mr Titchborne occupied ten evenings with lectures on Phrenology, embracing an analysis of the faculties, a review of all the objections brought against the science, and a demonstration that twenty-seven of the phrenological faculties are admitted by the most eminent British metaphysicians. The Society also met several times for private dis-

cussion. We are pleased to learn that one of the members, the master of the *Buffalo*, which lately sailed for New Zealand, has promised not to overlook opportunities of procuring skulls. Masters and surgeons of ships have much in their power to benefit science in this way.

QUEBEC.—On Tuesday evening Dr Barber gave his introductory lecture on Phrenology, in the Ball Room of the Albion, to a numerous and fashionable audience, amongst whom we noticed most of the medical gentlemen of the city. Yesterday we were of a party who accompanied Dr Barber to the Gaol where a number of offenders were, in succession, introduced to his inspection, and without any previous intimation of the crimes with which they were charged. The character which he gave each, as he passed under his hands, was strikingly correct, and in one wonderfully so. Whilst examining the skull of one of the prisoners, he felt satisfied from the development of certain organs that the subject was a character likely to commit a particular offence; and he asked if the commission of that crime was the charge for which he was in durance. It turned out that he was not now confined for the offence which the Doctor had named, but Mr Jeffreys, on searching the records of the prison, found that he had two years before been confined on a charge of having committed the offence which the organ indicated, and escaped from the prosecutor not coming forward. This certainly demonstrated that character is written in a legible text in the organs referred to by the phrenologists, and if on pronouncing on the disposition of other prisoners nothing of so material a nature occurred. The whole of his judgments were given with equal accuracy, and gave powerful evidence of the reality of the science and the skill of the professor. Last night though the weather was so dreadfully bad, the lecture was attended by a very fair audience, including the Governor-in-Chief and a party from the castle.—*The Quebec Mercury*, 5th Oct. 1836.

We observe that good use has been made of Mr Combe's Testimonials in Canada. They have been copied largely into the newspapers, and must have tended powerfully to dissipate prejudice, and excite to the serious study of the science.

WINCHESTER.—On Wednesday evening Mr Stebbing of Southampton, delivered his second lecture on Phrenology, at the Winchester Mechanics' Institution. After briefly alluding to that portion of the science which formed the subject of the preceding lecture, he proceeded to observe that Phrenology divides the faculties and propensities of the mind into three classes—the moral, intellectual, and animal; the moral being seated in the coronal, the intellectual in the frontal, and the animal in the basilar portions of the brain. The several faculties in each of these divisions were detailed, and the character which would be produced by particular combinations of them shewn. Having thus clearly laid before his audience the nature of the science, the lecturer proceeded to consider its uses and the benefits which its extensive cultivation would confer on mankind. Its application as a science to prison discipline, in the classification of criminals, was strikingly illustrated by a remarkable anecdote of the highest authenticity. The lecturer then applied the science to the treatment of insanity, and concluded his discourse by reviewing and answering the principal objections brought against it. The lecture throughout was received with the most marked attention, and elicited from the President a most cordial expression of the gratification which the members had received from Mr Stebbing's lectures.—*Hampshire Courier*, 28th Nov. 1836.

WINCHESTER MECHANICS' INSTITUTION.—On Tuesday evening Mr Craig delivered an introductory lecture to the members of this institution upon the Phrenological constitution of the human mind. Considerable attention was paid throughout the lecture, and we understand the subject will be continued in a few weeks.—*Star in the East*, 21st Jan. 1837.

THE
PHRENOLOGICAL JOURNAL.

No. LII.

ARTICLE I.

THE VIOLENT SPIRIT AT PRESENT DEFORMING THE RELIGIOUS WORLD, THE EXCESS AND ABUSE OF MERE ANIMAL FEELING.

THE intemperance which at this time afflicts too many professing Christians, and is particularly remarkable in some ministers of the Gospel of Peace, is perplexing to those who do not see human affairs through the medium of the phrenological philosophy of the human mind. The phrenologist can take his station on the elevation of his science, and, looking down on the turmoil, can see the spring of every movement which agitates the passion-driven crowd below. Several fundamental truths come to his aid. He knows that the cerebral organization of each individual, acted on by his circumstances, determines the direction of his opinions and feelings. The intellectual powers in two given individuals being taken to be the same, one of them, in whom the moral feelings of Benevolence, Conscientiousness, and Veneration, preponderate, will be gentle, kind, candid, respectful, and pious; while the other, in whom the balance inclines considerably to the animal feelings of Self-Esteem, whose abuse is pride, insolence, and love of power—Acquisitiveness, whose abuse is engrossing desire of wealth—Combativeness and Destructiveness, in their abuse contentiousness, violence, and revengefulness, feelings especially excitable by resistance to the desires of Self-Esteem and Acquisitiveness,—such an individual, in all he does, will, especially when opposed, be selfish, unfair, insolent, tyrannical, unmerciful, violent, and revengeful. The individual first described is essentially moral in his character; the other, from the preponderance of the lower feelings, and their state of abuse, is essentially immoral. It may here be remarked, that the breadth of immorality is greatly narrowed in its common

acceptation. It has been confined, and especially by religious professors, almost entirely to sins against chastity, temperance, and common honesty; while selfishness, insolence, avarice, envy, detraction, revenge, and violence, may all in their turn, or all together, be manifested by an individual, who nevertheless would be equally astonished and enraged, if any one dared to call in question his right to the repute of a perfectly *moral* character. While his pretensions are disowned by sound ethics, founded upon the relative gradations of worthiness in the human faculties, they are equally opposed to the most obvious principles of Christianity; and there is perhaps nothing in which the imperfect teaching and defective practice of that divine system is more glaring than the error just alluded to. The brand of immorality is rightly placed, no doubt, on the abandoned sensualist; but reason and Scripture alike extend its mark to the uncharitable,* the censorious, the proud, the tyrannical, the uncandid in controversy, the violent, and the intemperate.

The phrenologist farther sees that Christianity is addressed to the higher or moral sentiments of man; that it consists in their practical exercise; and that it can only be extended to others by the channel of the intellect and these sentiments. On the other hand, all attempts to *force* its extension, in other words, to dispense with intellectual and moral means, and to impart it dogmatically in one peculiar form, by the sanction of commands and threats, pains and penalties, is to convey it through a channel at variance with its nature, and to address it to lower feelings, which, from their very nature, will reject it. Hence all such attempts have failed, and will always fail, to produce genuine Christianity. They are essentially persecution, which necessarily rouses resistance, and thus gives strength and vigour to opposite opinions, if they are already entertained. This is the *rationalé*, deduced from the nature and action of the human faculties, of the fact that persecution always confirms what are called heresies.

It follows that he is the more fit, and will be the more successful, teacher of Christianity (intellect, as conditioned, being equal), who, from possessing a large endowment of the moral sentiments, readily receives and responds to its precepts and truths, and uses the gentle but powerful influence of the same feelings in teaching it to his brethren of mankind. While he in whom animalism predominates is utterly unfitted for the sa-

* Certain zealous religionists point to their deeds of *charity* in proof of the soundness of their faith. But these deeds of mere alms-giving are not the charity of the Apostle, "that suffereth long and is kind, which thinketh no evil;" and without which, giving our "goods to feed the poor profiteth not."

cred office of a religious teacher ; and when character is more studied in relation to pursuits in life than it has ever yet been, it will be held to be as absurd in such an one to assume the holy office of the ministry, as in a deaf man to teach music, or a blind man painting. From the manner in which the endowed offices of society are now filled, not because the individual suits them, but because they, from their gains, suit the individual, many unfit persons do intrude themselves into holy orders ; and, as *these per se* do not change the character, we find too many men presenting the most direct contrast, in their whole demeanour, to that spirit which ought to distinguish, by excellence, the servants of the meek and lowly founder of Christianity. This quartering for life, as it may be called, of men of war, not of peace, upon a country, this bounty on unfitness, is an evil in permanently endowed clerical offices, which no candid person will dispute, it would require very decided advantages to counterbalance.

The *broadest* base on which professing Christians unite, is the belief that the Scriptures are a Divine Revelation. That the message itself is from God, is a belief quite consistent with difference of opinion as to *what* precisely that message is. We may take for granted, that, with the exception of uneducated persons, who, in pure ignorant bigotry, deny that there can be any other view of that message but their own, all whose opinion weighs a feather's-weight admit, and act upon the opinion, that the import of the whole Scripture Revelation is not seen intuitively ; that of the broad and bright characters of its moral lessons alone, from their being also written with God's finger on the human heart, it can be said that he that runneth may read ; but that the *whole* revealed counsel of God is to be made clear by interpreting, construing, searching, trying, with that instrument the *understanding*, so highly approved and so strongly recommended by the Apostle Paul himself. Nothing better proves the practical universality of this opinion, even with the dogmatical and intolerant, than their own practice, in the freedom, and often presumption, of their own interpretations, constructions, and expoundings, at the very moment in which they are denying to their opponents the right to interpret at all. Indeed, on any other ground than the necessity of explaining the sacred volume, in other words, on the notion of intuitive comprehension, a *teacher* of religion would be an actual solecism. He is useful to the extent of aiding our own efforts ; but goes beyond his sphere, and incurs a deep responsibility, when he attempts to fetter our consciences on any point of Scripture meaning whatever. Now, of Scripture interpretation, as of all other interpretation, a variety of modifications in human faculties, feelings as well as intellect, may be reasonably expected

to take different views. This might be concluded *a priori*, but admits not of a doubt, when the fact is observed, that whenever the claims imposed by Catholic councils, which kept the whole Christian world in ignorant uniformity, were burst, Protestant Christendom, in obedience to the free scope of the faculties, split into divisions and subdivisions of interpretation, which have gradually increased in number to nearly one hundred. Now, it is the grand *error* of the Church of Rome to deny that the Scriptures were at all addressed to the human understanding, or any right of judgment given to man; while it is the grand *abuse* of that system to attempt by force, by pains and penalties, to produce conformity to one, and that its own, standard. On this ground chiefly the Protestant reformers took their stand, protesting *against* the infallibility of the Romanists, and *for* the irresponsibility of any human being for his belief but to his God, or, as it is called, the right of private judgment in interpreting the Scriptures,—a right, too, claimed with all the risk, nay the certainty, that, from the very nature of the human faculties, interpretations left free must and would be various. If this variety were fatal to genuine and sincere practical religion, the causes of it would not have been in the Divine works and ways; if it should exclude any conscientious interpreter from Divine favour, then would not the Evangelist of the Apocalypse have beheld “a great multitude which no man could number of ALL nations and kindreds, and people and tongues, standing before the throne, and before the Lamb, clothed with white robes, and palms in their hands.” All this is admitted abstractly by the most *popish* of Protestants, when you find him calm; yet no doctrine is more belied by him practically. It has become trite to say, that scarcely was the right of private judgment vindicated by the Reformers, than they, the reformers themselves, began to deny it to others. Persecution for conscience-sake soon shewed its hoof. Not contented with freedom from the thralldom of popish *power*, Protestants, in power themselves, have waged war against the most abstract catholic *opinions*, have long persecuted Catholics with disabilities, and have lately revived the persecuting spirit against them with sudden and violent rancour; in other words, have turned *papiets*, in the worst sense of the word, themselves. A jealous dogmatism, since the Reformation, has endeavoured to chain down the faculties of man to certain views; and has denied practically, what is weekly recommended in theory from the pulpit, the *right* to interpret, as following the *duty* to search, the Scriptures. This persecution is not the less real in fact, or less popish in spirit, because there is in Protestant countries no power to torture, hang, and burn, for opinions. To say nothing of a wide field yet open

at law for punishing the unavoidable conclusions of the faculties called opinions, there is an incalculable amount of persecution perpetrated by the tongue and the pen. Character is stabbed in secret by the most unchristian censoriousness and slander, and denounced in public, yet more boldly, by loud appeals to the mob, by reproachful names, or rather the reproachful use of the names denominating distinctions of opinion, —one of the basest forms of injustice,—and as we have recently seen with absolute disgust, by raising the mad-dog cry of “*infidel*” against every opponent, even in matters of tithes and church government.

It cannot be too strongly inculcated that all means of propagating Christianity but those of reason and moral feeling, are not only against Nature, but against Christianity itself. Away with the drivelling of those whose Self-Esteem and Combativeness persuade them that fighting is yet, and always will be, necessary for the propagation and defence of Christianity, and that *they*, forsooth, are God’s champions, whose religion will fall unless *they* prop it up; that the “good fight” is to be fought against their fellow men, and not, as in its true meaning, against their own internal corruptions, against their very fighting propensities. They will ask you—Where should we have been but for the combats of the Reformers themselves? No fallacy can be more gross. The Reformers fought against tyranny, against the very abuses which they are doing their zealous but feeble endeavours to re-establish.

But where is the use of continuing the battle after the victory is two hundred years won? The folly of this course is manifest in its signal failure to do any kind of good. The very attempt should be indictable matter against a Protestant minister, relevant to deprive him of his abused office; that those only may be left in religion’s service whose dispositions and lights prompt them to use the proper Christian weapons, conviction and persuasion, and, the beautiful handmaid of these, Charity towards all men. We are delighted to adduce a witness to the truth of the same views, from a quarter where we should least expect to find one,—from popish, and we should have believed intolerant, Austria. We quote from a work in three volumes, the second edition of which was published in Vienna in 1813,* by Dr Reyberger, a Benedictine Abbot, Professor of Moral Philosophy in the University of Vienna, and Book-Censor; a work characterised throughout by a liberal and tolerant spirit, which would better become many over zealous Protestants than their actual manifestations. “Christ himself,” says Dr Reyberger, “in promulgating his doctrines,

* *Institutiones Ethicæ, Christianæ seu Theologicæ Moraliæ.*

made use of no means but what were adapted to persuade men, and held in abhorrence all violence and coercion. Many persons have interpreted the saying of Christ—"Compel them to enter," (Luke xiv. 23.)—in an unfavourable sense, and supposed the meaning was, that those who refused to join the church ought to be compelled; but Christ speaks of no other violence in compelling them to the nuptials than that which is used in asking, exhorting, and warmly urging. For the Greek word *anagkothēin* (Matth. xiv. 23; Mark, vi. 45; Gal. ii. 11) has the same signification as *parabidhōmhai* (Luke, xxiv. 29), which alone, also, agrees with the text of the parable. And it is sufficiently obvious, from his character, that no belief or persuasion is to be desired from a Christian man except such as is voluntary, and is sealed by the consent of his reason (1 Thess. v. and Rom. xiv.; 1 Peter, iii. 15. and Rom. xiii.) Therefore, in affairs of religion, nothing is to be conceded to authority, nothing to the fear of man (Matth. x. 22; Rev. xv. 18, 19; Acts, iv. 19, 20), but every man is bound to follow the guidance of his own conscience, because every man will render an account only to God of his conscience (Rom. xiv. 12; 1 Cor. xiii. 8; Gal. iv. 4.) Hence we are warranted in concluding that it is our duty to tolerate, in a friendly manner, those who differ from us in matters of religion, to reverence their conscience, and never to condemn them on account of their faith (Matth. vii. 1; Rom. ii. 1; Cor. iv. 5), or exclude them from the benefit of our charity (Luke, x. 30); and that we ought, least of all, to injure their rights and liberties by any infringement of them, or violence."

The author refers at every step, not only to the Scriptures, but to the fathers of the church. The work is intended for the use of colleges and academies, and is a text-book for countries containing little short of all the Protestants of Europe taken together.

To any one who has perused the above passage, and verified all the texts to which it refers, which are all and each in perfect accordance with the conclusions of sound philosophy, the present state of the religious world must appear in any thing but a satisfactory light. A tyrannical dogmatism, a "rampant" orthodoxy, tolerates no interpretations, no opinions, differing, even by a shade, from its own; denounces with acrimony, as infidel, all attempts, however conscientious and benevolent, intellectually to enlighten, morally to elevate, and even religiously to improve, mankind in any way differing from theirs, even in the mere arrangement; dooms, so far as their power extends, to a kind of social proscription, and consequent patrimonial ruin, men who are spreading philosophical truth, calculated to humanize mankind, and render Christianity no

longer a form, but a practical principle in beautiful accordance with Nature;* whose pages glow with the purest love of their fellow men, and shine with the clearest guidance in the path of temporal, one earnest of eternal, happiness. Who, moreover, if they do touch Scriptural truths, use but the right which the Scriptures themselves bestow, of understanding these according to their conscientious convictions. A calmer, better educated, more *moral*, generation will review the sentence with which it has been vainly attempted to crush such benefactors of their species; while those who have pronounced it will, along with their own convictions, account for that sentence to their God, whether they have done good or evil.

But it is in the spirit of bigotry, intolerance, and attempted persecution towards other sects, nay towards those who differ from them, not on Scriptural interpretation at all, but upon the way and manner of temporal provisions, which degrades too many religious professors in the three kingdoms of this empire, that the contrast with a spirit more consistent with Nature and Scripture is most painfully glaring. It is a disgusting task to read the publications, and hear the declamations, of professed ministers of Christ, against these their brethren,—recriminations thrown back, reproaches heaped, *the lie* given, defiance hurled, vengeance denounced, *judgments* allotted, perdition almost invoked! There are, of course, individuals more prominent in these unchristian enactments, while many deeply deplore the suicidal course which they pursue. A glance is sufficient to convince a phrenological eye that in these platform combatants there is the animal organization of the genuine gladiator. In barbarous times—if we are yet entitled to call our own civilised—these men would have figured as the warriors of personal prowess; but we are civilised enough

* Paley's words on this point should be made a religious lesson. "What ever renders religion more rational, renders it more credible; he who, by a diligent and faithful examination of the original records dismisses from the system one article which contradicts the apprehension, the experience, or the reasoning of mankind, does more towards recommending the belief, and, with the belief, the influence, of Christianity, to the understandings and consciences of serious inquirers, and through them to universal reception and authority, than can be effected by a thousand contenders for creeds and ordinances of human establishment." We are in possession of a fact which, in the most striking manner, confirms Paley's opinion. At the end of the Lectures on Mental, Moral, and Educational Philosophy, delivered by Mr Simpson to the Working-Classes of Edinburgh in the winter of 1835, in which it was his practice to confirm the precepts of natural ethics by Scriptural authority, he was visited by a young man, one of his hearers, who told him that that method had so powerfully convinced himself and others his companions, who entertained infidel opinions, that Nature and Scripture were from the same God, that they were again reading their Bibles. How long would it be before the obstructions usually given as religious instruction produced such an effect!

to *limit* them now to effusions, spoken and written, of insolence, pride, intolerance, and violence. Their very voices, true to the well observed pathognomy and natural language of the faculties, are harsh and loud, and their gesticulations and whole manner coarse, noisy, and threatening. See any of these men in the heat of platform or pulpit combat, and then carry back the thoughts to the serene Master whom they profess to serve and to glorify, who never uttered an angry word, save against hypocrisy, and instantly repressed violence whenever in his presence it was either proposed or attempted ! The lesson is awful ! How long shall it remain of none effect on more temperate religious men ? When will *they* disown the prize-fighters, as well stationary as itinerant ? When will they practically believe that " the wrath of man worketh not the righteousness of God ? "

ARTICLE II.

COPY OF A LETTER FROM MR THOMAS MORGAN TO MR
H. C. WATSON, ON THE HISTORY AND STATISTICS OF
PHRENOLOGY IN SOUTHAMPTON.

SIR,

SOUTHAMPTON, 8th February 1837.

I have read with much interest and satisfaction your work on the History and Statistics of Phrenology, particularly great part of the second section, and, upon the whole, it is a very judicious and useful publication. There is only one thing I regret in it, which is the note at page 100, stating that, amongst other places, you had received no reply to your circular from Southampton.

I can explain this, as I am a member of a phrenological class where your circular was read, and directions given as to answering it. We at that time (in June last) expected Dr Engledue of Portsmouth to deliver two lectures here, and we wished to defer answering your questions till after that had taken place ; but the worthy lecturer was, after all, unable to attend, and we have not yet had the pleasure of hearing him. In the mean time, Mr Stebbing was requested to reply to your letter by stating this reason, and inquiring if you could await the result ; he, however, sent the letter by a private hand, and it appears you did not get it in sufficient time for the purposes of your publication.

I believe the first phrenologist in Southampton, at least the first that I knew, was Mr S. C——, a very reflecting, studious, and sensible young man, with whose acquaintance I have been

honoured for some years. He studied most of the phrenological works as they came out, before other people scarcely heard of them, and made himself very proficient in the science; though, to avow himself a phrenologist, required some nerve at that time; he has written several excellent papers since for the use of the class.

Dr Harrison Black was the next phrenologist I knew, who did what he could privately to advocate and promote a knowledge of the science amongst his acquaintances at Southampton, but he had not then much opportunity, as it was almost unknown. He has now left the town.

Mr Stebbing, to whom your circular was addressed, was the next person I knew, and he is a very clever phrenologist, having read and studied the science a great deal; and it is but justice to him to say, that he was the founder of Phrenology in Southampton as a science.

About four years ago, Mr De Ville of London came here, and delivered some lectures on it, which attracted great attention, and were well attended. He was also very obliging whilst staying here in manipulating the heads of any persons who pleased to go to him, and *many* availed themselves of that privilege,—some of whom were *perfectly astonished* at the correctness of the opinions and judgment he pronounced upon their abilities and dispositions. An acquaintance of mine, who is a drawing-master, went to him, and told me afterwards that it seemed to him like magic, Mr De Ville so accurately described his feelings, and what he could and could not do; and he would not be persuaded for some time, but that some one who knew him had given Mr De Ville information respecting him, which certainly was not the case. I took a young gentleman myself to Mr De Ville, who so accurately described his feelings and disposition, that he has ever since been a stanch phrenologist.

Shortly afterwards, a very respectable tradesman, being in London, called on Mr De Ville, and had his cast taken, upon which (as I believe is customary) De Ville gave him "a character," as he called it, in writing; and he told me that, though De Ville knew nothing whatever of him, it was more correct than he believed his most intimate acquaintance could have given it.

These things made some little noise in our corner of the world, and soon after De Ville's visit, Mr Stebbing (who, I believe, was a member of the Phrenological Society at Portsmouth), delivered some lectures at the Mechanics' Institution here, which were well received, and very numerous attended.

He purposed, at one of these lectures, to form a phrenological class at the rooms of the Literary and Scientific Society in the town, which many persons, including myself, agreed to. We

met accordingly, drew up rules, and purchased of Mr De Ville about 100 casts of human heads, to illustrate particular organs, which are still in our possession at the society's rooms.

The members of the Mechanics' Institution, however, in a spirit of emulation, did not like this arrangement, and immediately formed a phrenological class of their own,—to which, as well as to the other class, Mr Stebbing and myself, and several others, agreed to belong. This class was attached specially to the Mechanics' Institution, and none but members of the latter could be admitted to the former; but the other class was open to all persons without distinction; it, however, soon fell off for want of punctuality in its members, and the casts have remained on the shelves comparatively useless, whilst the other class at the Mechanics' Institution has continued going on prosperously till the present time, a period of nearly three years. It numbers now seventeen members, who for the most part are punctual in their attendance; and a medical gentleman, Dr Henry Clark, a worthy member of society, as well as of the profession, is our chairman.

We, at present, possess no casts, but occasionally borrow some of those above mentioned. We have six human skulls, and ten books, including Spurzheim's Characters, Combe's System, and Elements, and Constitution of Man,—your recent work, and Dr Andrew Combe's Physiology, besides the Phrenological Journal, which we take regularly. The entrance fee is only 2s. 6d., and subscription afterwards 1s. per quarter.

Our meetings were at first held weekly, but we altered them afterwards to every alternate week, and they still continue to be so held. Some member was expected to produce and read a paper at every meeting, and did so for the first twelve months, when, in order to obviate a difficulty we sometimes experienced of procuring a proper paper on the evenings of meeting, some seven or eight of us agreed, and pledged ourselves to each other, and to the class, that one of us would produce a paper in rotation at every meeting; and this has been done, with very few exceptions, up to the present time.

The brain,—the bones of the head,—the four grand divisions of the brain,—the temperaments,—and all the organs seriatim, have been, I may say, upon the whole, ably treated of in this manner. Two or three of the papers, namely, those on the Temperaments, on Amativeness, and on Hope, by Mr S. C.—, in particular, were rather masterly performances; and I have procured the first and the last, in order to transmit copies or extracts of them to the editor of the Phrenological Journal. We are now proceeding with the combinations, and other different branches and views of the science, in which we have hitherto succeeded admirably.

Several of our members, as you may suppose, are "phrenologists" according to your definition of the term. I wish I could number myself amongst them; but however well I may understand the theory and the philosophy of the science, I shall never, I think, be a good practical phrenologist, except in some extreme cases, not being able, from the want of sufficient Individuality, or from other causes, to distinguish minute differences of development.

Mr Stebbing has lately lectured twice at the rooms of the Mechanics' Institution to about 200 persons each time, who appeared to feel much interested, and awarded him a vote of thanks by acclamation. There were many persons disappointed of hearing him for want of room. He has since lectured at Winchester, and at Cowes, in the Isle of Wight, to crowded audiences, and gave great satisfaction, and is to lecture here again very shortly.

This gentleman is naturally inclined, from his active temperament, large Firmness, Combativeness, &c., to defy, and annihilate if he can, all the opponents to the science; but some of us have rather convinced him, that it is more to the interests of Phrenology that he should use cooler arguments and reasonings, as more likely to "persuade men" into a new science; and since he has adopted this view, his lectures go off more pleasantly, and have a greater effect. On the first formation of the class, Mr C., a medical gentleman of the town, was our chairman, he being one of the first founders of the Mechanics' Institution, who professed to be a phrenologist, and to have read and studied the science a great deal, which I must take leave to doubt, for it turned out that he believed "there was something in it," in a general way, but would not admit that the brain was divided into organs to the extent contended for by phrenologists, because, it seems, *he could not discover that it was so divided anatomically!* He prides himself particularly, too, in the anatomy of the brain, and says he has dissected more brains than most medical men of his standing and practice in the profession; to what purpose he has done so does not so clearly appear. He is inclined to think the doctrines of phrenologists to be anti-scriptural, tending to fatalism, and to take away human accountability, by shewing man not to be a free agent. He soon took a dislike to our opinions, and we to his, and so he left us.

I forgot to tell you in the proper place, that, about the time this class was forming, our friend Mr Stebbing challenged the opponents of Phrenology to a public discussion on its merits, at the rooms of the Literary and Scientific Institution. A Mr R. B., a young tradesman of some talent and ingenuity in the town, accepted the challenge. An evening was fixed and publicly an-

nounced, when the combatants entered the lists before a very crowded audience, and many went away for want of room. Mr J. R. Keele, a very respectable surgeon and phrenologist, was called to the chair. Mr Stebbing commenced by stating the outlines of the science, and citing authorities and arguments in support of its truth, as founded in nature and reason. Mr B. made a very plausible and ingenious, but flimsy, speech in his answer, and Mr Stebbing ably replied; in doing which, as well as in the opening, he quoted numerous cogent proofs, and called upon his opponent to do the same on the other side of the question, but which he acknowledged he could not, his only strength being in attempting to invalidate and weaken the evidence adduced by Mr Stebbing, which was of course a failure.

The discussion lasted upwards of two hours, after which the chairman put it to the vote as to which had best substantiated his case, when the meeting was all but unanimous in favour of Phrenology, there being, I believe, only two hands (by Mr B. and his brother) held up against it.

Mr B. is the only real anti-phrenologist that I know in the town, and he entertains some very strange notions on many other subjects. He argues that, admitting Phrenology to be true, it would be an evil if once understood and adopted by the public, and that even truth, *when injurious*, ought not to be allowed to become popular.

I expect this long prosing letter will not be very acceptable to you, but, at any rate, it contains the history of Phrenology in Southampton; and will enable you to say with truth, that, though ten years ago the word "Phrenology" had scarcely been heard of in the town, there are now in it very few who have not some slight knowledge of the science. Very many believe there is "something in it," and its language is in common use. It is no unusual thing to hear it jokingly said of a great disputant, or a fighting character, that he has a large organ of Combative-ness, or in giving a short or covert opinion of a man's conduct, it is often hinted that he has No. 1, No. 8, or No. 10, rather large, and so of the rest, which implies that the science has some degree of popularity even among the uninitiated.

As a proof, too, that there is a pretty fair sprinkling of phrenologists in this part of the country, I would lastly mention, that, a short time since, some person inserted in one of the Southampton newspapers a sneering and rather severe article, extracted from the Bath Herald, in which the writer accused the phrenologists of infidelity, or want of Christian belief, and defied them to answer the charge satisfactorily. The result was, that the editor received about twenty-seven well written answers from various parts of the county, for only one of which (by Dr

Engledue) he could find room. The letters are now in the editor's possession. I am, Sir, yours, &c.

(Signed) THOS. MORGAN.

To H. C. WATSON, Esq. Thomas Ditton Surry.

P.S. In the last Number of the Phrenological Journal, page 386, is a paragraph copied from the Hampshire Advertiser, stating that, on Tuesday evening (11th October), a lecture was given by Mr Stebbing, at the Literary and Scientific Institution, on the Physiology of the Temperaments, in connection with Phrenology. Now, the fact is, that the Literary and Scientific Institution being at a loss for a lecturer that evening, called upon Mr Stebbing, who is their curator; and he not being prepared at so short a notice, borrowed and read, to oblige the society, with a few observations of his own, the paper on the Temperaments before referred to by me, which had some time previously been prepared and read by Mr S. C. to the phrenological class, and, therefore, it is hardly just or true to call it a "lecture delivered by Mr Stebbing." I shall forthwith transmit a copy of the paper in question to the editor of the Phrenological Journal, together also with a copy of this letter, that he may either print the whole, or select any thing from it which he thinks will answer his purpose.

ARTICLE III.

NOTES ON WEIGHT, FORCE, AND RESISTANCE.*

WITHOUT proposing any theory concerning the function of the mental Faculty xxv and its organ in the brain, I have set down the following occasional thoughts, as notes, for consideration.

Phrenology represents the mind as a system of faculties, some of which perform the exclusive office of knowing and distinguishing the individuality, size, form, and colour of things and beings, as their inherent principles and conditions, forming separate objects of perception. Analogy would favour the opinion, that there should be a proper mental faculty for discerning the particular existence of Weight, in its various modes and relations to gravitation, and the terrestrial attractions. Many facts, ascertained by observation, experience, and reflection, afford good evidence in support of this analogical opinion, and

* This able communication is from our excellent correspondent Dr Kennedy of Ashby de la Zouch, and, although, some time written, has just been received. Subjoined is a letter from Mr Simpson, in which he states how far his own views on this important subject are confirmed, changed, or modified, by Dr Kennedy's; and likewise by those of Sir George Mackenzie and Mr Richard Edmondson of Manchester. The discussion has been both most interesting and effective.—EDITOR.

give it the value of a probable induction. Equally valid reasons lead to the belief, that the cerebral Organ xxv acts as the appropriate instrument of the mental faculty whose sole natural function is the perception of weight, as a distinct and powerful element in the economy of the universe.

Weight acts as a cause producing determinate effects alike certain and constant. It is always one in kind. It is uniform in its nature and action. In degree it changes, but the tendency and mode of its action are invariably the same. Now, all this being apparent, the inference cannot be unfair—that there ought to be a special mental faculty destined to discharge the office of perceiving the operations of weight, as a universal active principle whose influence is never suspended, in determining natural effects.

Weight, then, is an essential and efficient principle of things and beings. It possesses and exercises the energy or power of a natural agent. As an illustration of the actual and peculiar efficiency of weight, let a stone or mass of any kind be suspended by a cord, made of threads, which has been found, by experiment, to be incapable of upholding the stone for more than a few minutes. For a short time, the cord's strength will control the action of weight in the stone, and keep it suspended. From the first, however, the principle of weight will exert an unremitting impulse, so as to cause that the threads shall be successively broken; and then, impelled by the efficiency of weight in itself, the stone will forthwith begin to move, and to advance earthwardly with increasing velocity, until the action of its weight is overpowered by the stronger counteraction of weight maintaining the "impenetrability of matter." If this experiment could be repeated in a machine or other contrivance, having the ball and cord excluded from the influence of terrestrial attraction, and if the same effects were to result from the new experiment, would not these afford some evidence that the force, which broke the threads and precipitated the ball, was the efficient action of a cause—Weight—existing in the ball itself as one of its inherent essential principles? Here, then, it appears that the stone's weight exercises active power; it breaks the threads and the cord, impels the stone into motion, and thus shews that a modification of physical force is produced by weight in action.

Weight is primarily discerned by the mind as a mere abstract principle, element, or object of perception; but the quantity or measure of weight thus perceived and discerned is ascertained by direct experiment. Thus, the mind sees two distinct equal-sized balls, the one heavy and the other light, and from experience it knows that they both have weight, but the fact of this being different in them can only be estimated by comparing them

under the action of strength in the hands, and the precise quantity of weight in each of the balls can be known only by using the artificial process of "examining by the balance."

Could the means be devised for ascertaining experimentally whether or no the weight of things remains unaltered at the greatest accessible skyward distance from the centre of the "terrestrial attraction," the results would strengthen or invalidate the notion, that weight is an active principle, and produces effects indistinguishable from the causes of gravitation. Balloons afford a sublime illustration of the action of weight and its efficiency. Acting in the denser air, weight impels the gasated machine to move skywards into lighter air; and, at the same time, it is atmospheric weight that counterpoises weight in the machine itself with that of the aeronauts, and of the means requisite for insuring their personal safety and the success of their adventure.

Weight seems to be co-extensive with density in things and beings; for, as their density increases, so their weight is proportionally augmented. This effect results from the concentration of their material particles, with each having its own principle of weight as one of its constituent elements.

Weight being regarded as an active principle of things and beings, it is the efficient power of this principle which naturally impels them to gravitate. It causes them instantly to change both their state and their position, when obstacles to its incessant impulse are removed or overcome.* The action of Weight is distinctly perceptible on the human hand: it is perceived to be impulsive on any organic part endowed with feeling. When a bulky volume is placed on the open hand, the book compresses the palmar structures, and presses the whole member earthwards. How can it be demonstrated that attraction alone draws earthwards the hand upholding a heavy volume or a ball of lead, which is sensibly felt to be the cause of pressure and impulsion? Were the descent of the hand and book occasioned solely by the power of attraction, this power apparently could not act on the palmar surface, which feels an actual impulse: were the back of the hand thus subjected to the influence of attraction, the necessary degree of this would draw and distend the integuments so as to induce painful sensations or injury, as it happens when a cupping-glass, exhausted of its atmospheric air, is applied to a cutaneous surface: for if the earthward pressure of the book or ball is caused by a drawing power, or an attraction extrinsic to the thing thus drawn or attracted, then this pow-

* This may lead to some confusion of thinking. All that is known about the principle of gravitation is, that bodies *attract* each other directly in proportion to their masses, and inversely as the squares of the distances. The earth, as the largest mass, attracts all other bodies on its surface. We have no grounds to say that these lesser bodies have in themselves an *active* tendency to the earth; in the lesser bodies it is a mere passive obedience. But each of these lesser bodies would attract a yet more minute.—EDITOR.

er must exceed the power that keeps the attracted thing in the place from which it is drawn, or where it sustains the efficient influences of attraction. Can it be shewn that attraction reaches the foetal being during pregnancy; that the unborn being is more susceptible of the attractive influence than its parent, who is sensible of carrying something heavy; or that it is attraction alone, exclusive of all other agents, that causes the feeling of weight, or sense of pressure earthwards, with its increasing power, which is distinctly perceived by the mother throughout the time of her gestation? If attraction acted alike, in kind and degree, on the young one and its mother, how could she discern its weight, how could she perceive its earthward impulse?

Gravitation is the state of things and beings yielding to the action of weight, when it causes them to pass from rest into motion. Considered apart from others, the "terrestrial attraction" is an active principle in the earth as the centre of a system; and, through the peculiar agency of its principle, this attraction communicates a mid-earthward direction to the motion of things and beings when they are gravitating. All the constituent elements and parts of the terraqueous globe, with those of its circumambient system, are kept in their proper and relative aggregations by the action of weight making them gravitate under the direction of the mid-earthward attraction. In other words, Weight is the active principle which makes things and beings begin to gravitate: it places them under the influence, and causes them to yield to the power and direction, of the attracting principle that guides their gravitating course. Weight moves them, and their motion is conducted by Attraction. Hitherto attraction has been conventionally regarded as an agent: in its structure, the term naturally implies action. When we say that bodies attract each other, we necessarily assume that bodies possess a peculiar active power, by which they perform the act or function of attraction. What are the facts which distinguish the Terrestrial Attraction from Weight, as an efficient principle? Are there facts to shew that bodies tending earthward attract each other in proportion to their masses, independently of their weight and its natural impulse, which is here represented as being incessant? When a grain of granite falls between immense blocks of the same formation, or rolls over their sides, without being arrested in its earthward progress by attraction to the larger masses, what are the facts which prove that its first motion was caused entirely or chiefly by the power of Attraction, exclusively of the impulse of Weight?

The Faculty which perceives Weight executes its proper function by instinct or intuition; and, like all other mental faculties, it is capable of acquiring an increased facility and vigour of

action from exercise, training, and habit, combining to form experience. The mind perceives intuitively the existence and action of weight in the individual's own person, but it perceives them in all other things and beings exclusively or chiefly by experience. Might we speculatively represent weight as the instinctive will of mere matter?

Without discerning the principle of Weight as the cause which naturally and actively tends to displace them from the erect posture, animals, by the intuitive exercise of an appropriate faculty, perceive this principle exerting its perpetual impulse to make them fall, to put their heaviest parts foremost as they gravitate. Nevertheless, they also intuitively prevent themselves, through the agency of other faculties and their organs, from coming under the ascendancy of weight and its constant action by the intuitive or instinctive, and, from habit or otherwise, the often unconscious exercise of that mental faculty which originates and directs the application of muscular action. The primary and constituent step or act of this preventive office—*perception of Weight in action, the cause of its necessity*—seems to be the exclusive function of the Faculty xxv, and its cerebral organ.* These conjointly perceive the earthward impulse of Weight, in the first instance; and when, through the completed act of this faculty, the mind knows even unconsciously the effective tendency of this impulse, another or others of the mental faculties simultaneously or instantaneously, in the same manner, direct and institute an equivalent exercise of those organic functions by which the natural impulse of Weight, as an active principle, is naturally counteracted. When, therefore, we shall admit this view of the faculty in its nature and operations, there will not exist any insuperable objection to our retaining the name by which it has hitherto been designated in the phrenological nomenclature.

Force does not appear to be a property or active principle in things and beings. It might be represented as the perceptible action of impulsive causes, rather than the originating source or cause of efficient impulse. It is efficient impulse in actual application, and it is employed under much diversity of form, or kind, and degree.

Force is the action of weight or of strength; and, by the efficient application of these two principles all the kinds and degrees of force are produced. It is probable that the mind includes faculty, having its proper organ in the brain, whose function is specially exercised in perceiving the relations of voluntary vital action. Might these be denominated the Faculty and Organ

* As the author has already said that the perception of weight is the *sole* function of the Organ xxv, we take him here to mean nothing inconsistent with that proposition; but to state that xxv, inasmuch as it does perceive weight, prevents accidents by calling the force-applying faculty to do its duty—EDITOR.

of Strength? If such there are, the organ probably has its place in the anterior cerebral lobe, somewhere in the angle formed by the organs of Number and Constructiveness; and perhaps this will be found to hold the same sort of relation with an organ in the posterior lobe, or in the cerebellum, or in the medulla oblongata, giving the impulse to muscular action, as that relation which the perception and organ of Tune have to the sense and organ of hearing.

Strength here expresses all that is meant by the words energy, influence, efficacy, vigour, and power. Energy, influence and efficacy might be used as convertible terms; but it would be conducive to philosophical precision, if the distinctive significations of energy, vigour, and power, were conventionally limited. Then might we say that energy is strength remaining latent or inactive; that vigour is strength producing physical and vital results; and that power is strength effecting the different mental processes or functions.

Force is the action of weight and of strength applied in impelling, tending to move, or moving things and beings. It has physical, vital, and mental modifications. Besides, as an expressive term, force implies the application of an acting or efficient cause producing, or endeavouring to produce, discernible effects.

Physical force is the action of weight, in all its forms and kinds, and it is the action of strength, under the forms of elasticity, attraction, expansion, and the various mechanical and chemical principles, applied for the production of manifest results. Thus, for instance, weight acts against weight on the inclined plane of a rail-road when the weight of a descending waggon is made to assist in countervailing the weight of another that ascends. Here, it is the action of Weight which makes the physical force employed for attaining a definite end.

Vital force is the action of strength exercised in the growth, development, and maturity of vegetables and animals, and in the organic motions or functional operations of vegetables, and animals and man, whether these motions or functions be voluntary or involuntary, instinctive or intentional. Among the propensities, as previously surmised, there may yet be found one which feels or makes, and imparts the impulse to muscular action.

Mental force is the action of strength, applied by the mind's constituent faculties in feeling, perceiving, and reflecting, every one of them through the instrumentality of its own proper organ in the brain.

Were it necessary that there should be a distinct mental faculty having the perception of force for its peculiar function; then, by the same law, there would be an equal necessity for the existence of a special faculty for perceiving its own proper

action as well as the action of every one of all the mental faculties, for perceiving action independent of the agent or the cause.

Weight and strength are the chief, if not the sole, causes or sources of the manifold actions which constitute the different kinds of force. Now, when a faculty of the mind perceives weight or strength as a distinct efficient principle, it will, by simultaneous operation or by indistinguishable sequences of mental agency, discern the force which is or makes the action of this principle when it is determining perceptible results. Thus represented, its action and its force have a co-relative and co-extensive existence; and, in being inseparable, or unknown as two distinct objects, the action and the force may be considered as identical.

Before or in the act of originating force, a mental faculty intuitively or experientially perceives the existence of weight or strength; then, of itself or with the co-operation of one or more other faculties, it intellectually estimates the measure or quantity of weight or strength that requires to be counteracted or overcome by the action of weight or strength which is the force being or about to be originated; and then, having perceived as well as estimated this measure or quantity, the acting faculty and its assistants (if it has any) instantaneously communicate their judgment to the faculties and their organs which naturally produce and direct, or apply the physical, vital, or mental force, requisite to withstand or surmount the force which was primarily perceived and estimated. Guided by intuition or experience, one mental faculty may perceive the existence of force in the action of weight or strength; but the process of mentally estimating and applying the measure or quantity of force, can be conducted only by several of the mind's faculties co-operating to arrive at a determinate but complicated result. In other words, while calculating a required measure or quantity of force to be applied, the mind primarily and necessarily perceives and estimates the amount of weight or strength whereof the action is intended to be withstood or overcome. This simple or gradual process of perception and calculation and application is accomplished by a simultaneous co-operation of intellectual faculties, or by indistinguishable sequences of their proper functions; but it is one sole faculty exclusively that perceives weight and its action which is force, because its existence is indicated entirely, and not otherwise, by its action.* These remarks are offered in explanation of a mental process, the parts or steps of which are simultaneous or indistinguishable.

When the action of strength, producing vital force, is employed for the purpose of throwing projectiles from the hand,

* We fear that the above is rather a complicated counteraction of gravitation. Animals down to the lowest must do so, not by calculation, but *instinctively and instantly* in every bodily movement.

EDITOR.

it is the action of weight in the missile and in the atmospheric elements, which is perceived and requires to be mentally appreciated. First of all here, the mind, through one of its faculties, observes this twofold weight as a distinct object of perception ; and then, by an intellectual process, it estimates the requisite measure or quantity of vital force with which the action of weight, in the air and the missile, can be overcome or counteracted. Thus, the measure or force produced by an efficient application of strength, is determined by the measure of weight acting earthwardly in the projectile and in the superincumbent portion of the atmosphere which the missile must permeate in its passage : and thus, in knowing the force to be counteracted, the mind discerns the counteracting force also ; and this twofold knowledge is attained by the intellectual faculty which perceives the cause of the physical force as the action of weight, and by the faculty which perceives the cause of the vital force as the action of strength : now, weight and strength are here the efficient causes, and the kinds of force are co-essential with their actions.

Again, in drawing a bow-string with the object of projecting an arrow to a determinate distance, there is an exercise of strength producing the vital force requisite for making the action of elasticity originate the necessary measure of physical force by which the missile is to be projected. In this case, the proper intellectual faculty perceives that the groundward action of weight, in the arrow and the atmosphere, must be overcome or rather counteracted while the missile is traversing the space between the archer and his distant mark. Here is a beautiful illustration of the action of weight. As this gradually prevails over the action of elasticity subserving that of strength, the arrow gradually approaches the ground, defining part of a circle as it advances, until ultimately the incessant operation of its own weight, assisted by that of the air, overpowers the combined physical and vital force by which it was originally impelled. At the outset of this process, the mind having preconceived, known, and estimated the earthward action of weight, the acting perceptive faculty communicates its knowledge to the faculty which gives the desire and the power to use the vital action or force of strength in muscular exertion : at the same time, the mind also knows, from intuition or experience, that the bow possesses elasticity ; and, with its twofold knowledge, it prompts the archer to the exercise of strength as the cause of vital force capable of producing the physical force of elasticity equal to that of the action of weight during the arrow's flight over its assigned course.

What is it save the incessant re-action of weight and strength, that sustains the perpetual function of respiration in every thing that lives ? Acting in the atmosphere, Weight makes the physi-

cal force which impels air, through the inmost recesses of the lungs, into contact with the blood; and then acting in the pulmonary tissues, Strength makes the vital force which expels the lightened air from the lungs, and exposes it to be dissipated through the atmosphere by the weight of a succeeding stream of air which is heavier from being charged with the sustenance of life. Here life, which has its laboratory in the lungs, abstracts from the inspired air some of this sustenance, with its principle of weight, and consigns it to the circulating blood, in adaptation to its ultimate ends.

So it is likewise, in walking, running, leaping, dancing, self-poising, and the voluntary locomotions of animals and of man, that the all-pervasive action of weight is managed by that of strength producing the vital force, directed by intuition or the will, in performing these exercises.

What makes and drives onward the tempest or hurricane, with the havock and the horrors by which its impetuous and terrible career is distinguished? Weight is the creator of tempests, and its action in heavy air rushing naturally into equipoise, constitutes the physical force which too often overwhelms extensive regions with desolation, and their dwellers with dismay.

Analogy and observation supply abundance of reasons for inferring, that each of the external senses has an appropriate co-efficient organ in the brain, and through the instrumentality of this, its own proper organ, every particular sentient faculty executes its distinct peculiar function. Feeling is the sense which perceives the palpable qualities of things,—the hard and soft, moist and dry, smooth and rough. Touch is feeling in exercise or application, and it constitutes a distinguishable modification of vital force in action.

Resistance is a state or action, not a thing or being. It may be active or passive; and, in either form, it is merely an application of force, while force itself is nothing other than the action of weight or strength exercised in causing their natural effects. Thus, the action of weight or strength makes the resistance of things and beings undergo the impulse to motion; and this action, in keeping material particles together, makes the resistance which results from the "impenetrability of matter." Resistance, therefore, is the efficiency of one kind of force employed in counteracting or overpowering the efficiency of the same or another kind of force. It is physical, vital, and mental; and it always implies the action of weight or strength as force applied in contrariety to weight or strength in action.

Physical resistance is the impeding force made by the action of weight and strength in things and beings enduring an efficient application of physical or vital force as the action of a perceptible operating cause.

Vital resistance is the action of strength applied in withstanding the action of weight or strength as force under its physical or vital modifications.

Mental resistance is the action of strength, as power exercised by faculties of the mind in restraining or directing the action of strength exercised by other faculties of the mind in the consciousness or expression of feeling, perceiving or reflecting. His possessing the power of resisting dispositions and motives, places Man under the obligation of being responsible for the thoughts, words, and deeds included in his conduct.

What should prevent our concluding, that the Faculties V and VI originate or invigorate some kinds of force, or that V and XV originate or invigorate some kinds of resistance?*

On the ocean, ships resist the water, and thus they preserve their cargoes dry : on the other hand, the water resists the ships, and thus it keeps them buoyant. Wind is an action of weight in dense air gliding or rushing into regions of the atmosphere occupied by that which has been over-rarefied : in this way, wind causes a horizontal force, and the sails of ships, by resisting this action of weight in the wind, enable it to propel the vessels. Here weight in the ships acts on the waters, and its action is the force by which these are divided. Again, weight acts in the waters, and its action is the force which aggregates their globules, and thus maintains their natural density which keeps the vessels afloat. Besides, strength, acting in the materials and structure of the ships, supports their impermeability, and thus makes the force of passive resistance which prevents the water from penetrating their sides, and overpowering or destroying their buoyancy.

We need not use the phrase "resistance upward," because "upward" implies tendency and motion, which are effected by force as the action of a cause. It is not the force which moves a thing upward, but the force that impedes the upward motion and its cause, which constitutes resistance, and even this itself is nothing other than an efficient application of the physical and vital forces. When a block of stone or a mass of earth is said to resist the physical and vital force employed to displace it upwardly or laterally, such resistance is a mere natural action of weight becoming the force applied for counteracting that exerted for the stone's displacement.

Weight is an agent, almost infinite, nearly omnipotent. Force is the action of this agent ; Resistance is an application of this action : and the mental faculty which intellectually perceives this effective agent, will necessarily know its proper action and its applications, when producing its natural results.

July 13. 1835.

J. K.

* The numbers refer to Combativeness, Destructiveness, and Firmness.

ARTICLE IV.

SOME FARTHER EXPLANATIONS OF THE DOCTRINE OF RESISTANCE AND FORCE, AS SET FORTH IN ARTICLE I. OF NUMBER XLIII. OF THE PHRENOLOGICAL JOURNAL.

(TO THE EDITOR.)

SIR,—In reflecting on the doctrine of Resistance and Force, on which I have thought and written so much, and taking a deliberate review of the contributions of Mr Richard Edmonson of Manchester to the inquiry,* I am led to think that that gentleman's suggestions have not yet received from phrenologists the attention to which they are entitled. He has much shaken my belief that the *organ* hitherto called *Weight* (marked XXV. in the bust) is that of the *actual* application of *Force*, and brought me to incline to the conclusion that the organ called *Constructiveness* really performs the force-applying function, while the organ XXV. has another, and that nearly allied to, if not identical with, its original denomination of *Weight*, which is another term for *Gravitation*. Reserving the question of *organs* for after and separate examination, allow me to inquire how far Mr Edmonson travels on the same road with me on the doctrine of Resistance and Force as *faculties*.

It is important in this inquiry to distinguish carefully Faculty from Organ, as the indiscriminate use of these terms tends greatly to confuse the discussion. Let us then first speak of *Faculty* without regard to Organ at all. I am still unshaken in my belief of the truth, as brought out in a former letter,† that man and all animals have a *Sense* for Resistance, and a *Faculty* for counter resistance, in other words, applying force. Mr Edmonson agrees with me in holding this twofold truth to be demonstrated. Sir George Mackenzie ‡ admits a sense for Resistance, and merely differs from me as to its right name. §

* Vol. vii. page 106; ix. 142, 208, 624.

† See title of this article. As it is of consequence to refer easily to *all* the papers on this subject, we again enumerate them in their order. Vol. ii. pages 297, 412, 645; iii. 211, 461; iv. 266, 314; v. 322; vi. 134, 343; vii. 106; ix. 142, 193, 308, 211, 349, 624.

‡ Vol. ix. page 349.

§ Sir G. Mackenzie wishes to retain the old name of *Touch* for the muscular sensation, and to give that of *FEELING* to the mere surface or skin sensations of Heat, Cold, Pain, Itching, &c. There is no difference between us in thinking that these two classes of sensations are distinct. Indeed Sir Charles Bell has *nearly* traced them to distinct systems of nerves, one supplying the muscles, and the other the skin. Sir George Mackenzie is right that we get both sensations by *touch*, in other words, by the act of applying the body, skin and muscles both, to the object. The distinction of the two senses should, therefore, be into *RESISTANCE* and *FEELING*—the mere word *TOUCH* expressing both, although distinct senses.

Let us next inquire what are the external objects related to the sense for resistance, and the faculty for applying force. These are the forces called *resistance* in general. This needs no proof, it is an intuitive truth, it *must* be true. To feel a resistance it must be present to us as such ; and counter force applied to any thing but resistance is an idea involving absurdity. But an important question occurs here, to which, without Mr Edmonson's happy suggestion, it might have been long before the attention of any phrenologist had been called—are all resistances of one kind ? As to our perception of them, in my letter already alluded to, I never thought of doubting that they are, although I did state that gravitation resists us in one direction, and material impenetrability in another ; the first attracting us in the mid-earthward direction ; the second acting in the exact contrary direction, and by the impenetrability of the ground on which we stand, supporting, in other words, resisting, us, in the direction exactly contrary to that of gravitation. - The one resistance draws us, the other supports us. Both are resistances, and necessary to our existence on the surface of the earth. *Supports* in all other directions, as leaning against a wall, or even hanging suspended, are but modifications of the same *supporting resistance* ; because the ultimate pressure must be on the earth in the contrary direction to gravitation. Keeping this distinction in view, we proceed to inquire, do we feel these resistances in our own bodies thus operating in opposite directions, by the same or by different mental powers ? I think it clear that one sense, the nerve of which, according to Sir Charles Bell, informs the brain of the state of the muscle, is sufficient to make us aware of the mere resistance in both directions—both that we are falling or resting, unsupported or supported. This is clear, because it is another expression for the state of the muscle as affected by the variations of resistance. Withdraw support, or push the body to an inclination which unsettles the centre of gravity, and assuredly you change the state of the muscles in a way that requires no second message to the brain. Hence the instant and violent effort we make to alter again the state of our muscles, and gain counter resistance or support.

Here Mr Edmonson comes to my aid, and has convinced me, that the mere *sensation* of resistance is not enough for one kind of resistance, and that is gravitation. A *perception* is necessary as well as a mere sensation, but a perception which the sensation informs. It is not sufficient that we feel the downward attraction of gravitation, so strongly that we cannot leap more than a yard in the opposite direction. We require, in our most ordinary muscular movements, a perception that our centre of gravity is properly regulated to enable us to stand *erect*, an-

other word for Mr Edmonson's *vertical direction* of our bodies, the true line of gravitation. It is the erect position of man which best illustrates this perception. When he stands erect, he places his whole body in the best position to be supported in one important direction, namely, the mid-earthward attraction; his muscular force being used merely to keep up that direction, precisely as a juggler balances a pole on his chin. This perception of the body's *best* position for its centre of gravity, when depending on its own muscular force, and not supported laterally by a wall or any other prop, is just the faculty by which, on the surface of a round ball poised in space, in which *up and down*, terms relative to material objects and not to vacancy, cannot be, we *must* have the feeling that our head is always in relation to the earth what we call *up*, and our feet *down*; and it is interesting to observe, that on the surface of a world of no other form but the spherical could that perception have been *equally* experienced by all its inhabitants, the *centre* being a common point of attraction to all. This is another, and perhaps not yet noticed, harmony of Nature.

But we are not done with the perception of gravitation. It is not enough that our own bodies are properly regulated in relation to it. Our safety, as well as our power, requires that we shall have means, and these instant and instinctive—for reasoning and experience would come too late for its purposes—of perceiving the relation of *external* objects to gravitation. The *sign* of this relation is their *verticality*. If they are not vertical, resistances in other directions, called props, are necessary for their support. The example of the juggler's balanced pole is quite in point. He needs no props for his pole as long as he keeps its centre of gravity within its narrow base, which he can only do, by keeping it accurately perpendicular to the horizon, in other words, in the precise line of the earth's centre. We are prompted instinctively to apply props whenever we see objects which ought to stand vertical swerving from the perpendicular. We have a desire for verticality, and are offended by a wall, chimney, or spire which is not accurately perpendicular; and, if obliged to pass near it, will consult our safety by keeping as wide of it as we can. Is this the manifestation of a special primitive faculty? That it is Mr Edmonson's opinion, and he adduces, among other proofs, the specific nature of the illusions of disease, many of which are perceptions of variations from verticality. These illusions were experienced by Miss S. L., Mr John Hunter, the Opium-Eater, and others. They all saw horizontals and perpendiculars at other angles; a common result also in intoxication.

In Volume X. of the Phrenological Journal, page 466, a case

of diseased perception is mentioned, where an individual, who felt excruciating pain over the brow, from injury of the brain somewhere about the cribriform plate, had the belief that every thing was tumbling about his ears; and on one occasion stood four hours pushing with all his might against a wall which he supposed would otherwise have fallen. Mr Edmonson has added * a striking instance of a lady, who, with pain in the region of Individuality, saw spectres of all sizes and colours, and perpendiculars at other angles, the windows and walls standing awry; her bed, too, did not feel to her sufficiently level to be safe. This last illusion, with the same in Miss S. I., and Mr John Hunter, who used the expression that he did not perceive his own centre of gravity, is a proof that Mr Edmonson is right, that we gain the perception through our muscular sense as well as through that of sight.

Again, let us more particularly inquire through what *sense* or *senses* we perceive the relation of the position of *external* objects to gravitation. Clearly we can both see it and feel it; for I have tried a blind person with vertical and sloping objects, and found that he perceived them as readily by touch as I did by sight. A blind person's chief attention is feeling about for resistances, that he may profit by those that support, and avoid those that would obstruct him. He knows the perpendicular from the horizontal, and all the points of the quadrant between them; but this he can only do, by feeling when and how he is resisted. This he does by the sense of resistance, for which Sir C. Bell has shewn the necessity of a nerve. But, as those who have their sight also *see* the vertical and the deviations from it, it is plain that two senses are channels of the perception. It follows, according to the analogy of Form and Size, the inlets to which are also sight and resistance, that this perception must have an organ; and this is another expression for averring that it must be a distinct primitive faculty.

Mr Edmonson was led to claim a special faculty for the relation of all material objects (including our own bodies) to gravitation, by observing, that *verticality*, which is the right direction of gravitation, is perceived in different degrees of correctness by different persons; and, concluding that *verticality* is the perception, he proposes to give the faculty that name. I am inclined, however, to think, that Mr Edmonson, although his observations on verticality are most valuable, mistakes the sign for the thing signified, when he would limit the name of the faculty to *verticality*. The thing perceived is really the gravitation of objects—their tendency to gravitate—their downward or mid-earthward attraction, accompanied by a desire that they shall stand secure by their own weight, which we are in-

* Vol. ix. page 627.

instinctively assured they do, when they are perpendicular to the horizon. This perpendicularity is the standard of true gravitation. To this we have an irresistible impulse to return, when in our own bodies we are forced to swerve from it; and not less to restore external objects to it when they deviate from it, or, in other words, incline to fall. Witness the patient already mentioned holding up the wall.

If a statuary were to place the human figure in a sloping position, we should have positive pain in looking at it. If we saw a living man *sloping*, we should start forward to set him straight. The famous Chesterfield steeple offends the eye by being considerably off the perpendicular; and Mr Edmonson pointed out to me, or rather tried my own powers to discover, not a few of the many hundred tall chimneys in Manchester, which are what builders call off the plumb. This perception of "the plumb,"—this pain from deviations from it,—and last, and not least, this impulse, this nervous agitating impulse, to restore it when departed from, cannot be the result of experience with regard to external things more than in the balance of our own bodies. It is a primitive instinct necessary to our safety; for it is well known, that dogs and other animals will avoid a sloping wall. The *sign* to us, that all is safe in relation to gravitation, is verticality no doubt; but the *appetite* is not verticality, but balance, security, in short, to return to a term early used in the discussion; equilibrium.

We are yet speaking, let it be remembered, of a perceptive *faculty*, not yet of its organ. Let us see what light Dr Kennedy has thrown upon it in his paper, which I have read with much pleasure.* He holds with much truth that Weight, that is, force tending mid-earthward, is a distinct and powerful element in the economy of nature; that it is uniform in action, one in kind, varying only in degree. He argues that there must be a faculty for a quality of material objects, which is never for an instant suspended, in analogy to Form, Size, and Colour. He holds that we tend instinctively to the *vertical* position in our own bodies, and counter-resist gravitation by muscular exertion. Now it is plain, that Mr Edmonson's verticality, and Dr Kennedy's weight or gravitation, must be objects of the same perceptive power; the one being the indication, standard, or inseparable condition of the other. Both writers hold, and I agree with them, that there must be a special faculty for perceiving this quality or condition in Nature. The one, however, takes the quality, the other its inseparable sign or standard, which sign, in our perception of the quality in external objects till we actually *weigh* them, is all that we can perceive.

* See preceding article.—EDITOR.

I would recommend to phrenologists a diligent perusal of Dr Kennedy's paper on the subject of Force. He rightly considers all resistances themselves as forces operating in opposite directions ; and in this he agrees with Sir George Mackenzie, who holds *force* to be the primary function, of which gravitation, adhesion, expansion, buoyancy, attraction, repulsion, are only subordinate functions. I doubt the propriety, at least the necessity, of distinguishing, as Dr Kennedy does, from force, *strength*, as efficacy, vigour, influence, not yet in action ; while force is strength in action. With deference, I should hold that both are force, the one in *posse*, the other in *esse*. Dr Kennedy has brought some striking illustrations to the elucidation of force. Resistance, he says truly, is a state or action, not a being or thing. Whether active or passive, it is an application of force. He says, Sir George Mackenzie and I have not a remaining doubt, that both the thought and the expression are perfectly correct, and will introduce much more precise language than we have yet made use of in this discussion. Sir George Mackenzie is right that Equilibrium is, like Resistance, only a state, not a thing. It is the balance of forces producing rest. I need not go into Dr Kennedy's subdivisions of resistance into physical, vital, mental.

Let us array the points before us which we may safely hold now made clear. 1st, There are only two physical powers, WEIGHT, or GRAVITATION, and IMPENETRABILITY. Motion itself is merely a means of bringing one or other or both of these powers to bear. Such is the motion of the animal muscle, expansion of steam or gunpowder, the wind, &c. All these must be impenetrable by the object acted upon, otherwise they can exert no power upon *it*. A sharp edge cuts animal muscle, and may be conceived sufficiently fine to divide wind, gunpowder and steam, and remain unmoved. The impelling power must be impenetrable by the object impelled, to exert power.

2d, FORCE is the primary and universal condition of material nature, and is the actual operation of Weight and Impenetrability.

3d, RESISTANCE is the state of force met by force, each force resists the other, and it matters not which is in motion and which at rest, which impels or presses, and which is impelled or pressed upon.

4th, Force overcoming force, or resistance produces motion.

5th, Force balancing force produces rest or EQUILIBRIUM.

Permit me now, in a few words, to inquire, in what the views of my friends Mr Edmonson and Dr Kennedy affect the doctrine of my former letter.* Neither has touched or indeed ques-

* Vol. ix. p. 216.

tions the conclusion of that letter, namely, that there exist in man and all living animals a SENSE FOR (FEELING) MECHANICAL RESISTANCE WITH ITS NERVE, AND A FACULTY FOR (ATTEMPTING) FORCE WITH ITS ORGAN. It is plain that it is more correct to use the word *resistance* than force operating upon our bodies, for resistance is just that direction of force. What, then, has Mr Edmonson done, and Dr Kennedy confirmed? This they have done—they have shewn that, besides a sense to *feel* resistance, which seems to be enough for the impenetrability of matter, we require a faculty to *perceive* the right operation of that never-ceasing influence called gravitation. That we require for both our safety and power a perception as well as sensation of this energy of nature, as it operates in external objects as well as our own bodies.

So much for their joint modification of, or *addition to*, my humble attempt at a doctrine, and in adopting their view I tender them both my cordial thanks; as I likewise do to Sir George Mackenzie for his views on *Force*.

So much for *Faculty* without organ. But it is by means of observations on *Organ* that my friends have come to the conclusion as to faculty. Dr Kennedy unhesitatingly fixes on XXV., the old organ of *Weight*, as rightly denominated. I may say Mr Combe agrees in this. Mr Edmonson claims the same organ for his verticality, which is really the same thing. He proves it by pain in the region when the illusions take place, and by many observations on his own workmen and others. I should recommend to him farther observations, by which he will importantly serve the cause. As I am inclined to concede to these united authorities the organ of force, which I am now satisfied is not XXV., I can only refer to Mr Edmonson's own able papers* for the grounds upon which he transfers the organ for applying force to Constructiveness. His observations are extensive, and will yet be more so. He will agree with me that farther observation is necessary on this important point. I have lately made some observations, though in a less extended sphere than Mr Edmonson, and on the whole they have been confirmatory of his own. I lately observed the development of the celebrated violinist, Emiliani, whose whole skill is the nice apportionment of force, and I observed that he had only a moderate organ XXV., but an uncommonly large organ of Constructiveness. I am your very obedient servant,

JAMES SIMPSON.

EDINBURGH, 25th March 1837.

* Vol. ix. p. 142, 206, 624.

ARTICLE V.

COURS DE PHRÉNOLOGIE. Par F. J. V. BROUSSAIS, Membre de l'Institut, Officier de la Légion d'Honneur, Professeur à la Faculté de Médecine de Paris, Inspecteur du Service de Santé des Armées, &c. Paris, chez J. B. Baillière, à Londres, Même Maison, 219 Regent Street. 8vo. p. 350. 1836.

THIS work is calculated to do a great service to the cause of Phrenology. It combines freedom and vivacity of exposition, with precise knowledge of the subject, clear arrangement, discrimination, and sound logic.

Dr Broussais follows the classification of the organs which was adopted by Dr Spurzheim, and which is common in this country. He states at the same time, that this order is by no means perfect, and that he does not regard it as established. We regard uniformity of plan as an object of considerable moment in teaching a science situated as Phrenology now is, when the most pressing necessity is to communicate to the young a knowledge of what has been accomplished. We think that he has shewn great judgment in acting on this principle. It is one object to correct and enlarge Phrenology; and another to teach it, so far as known, with its applications. The former is the higher department, the one which demands the most acute powers of observation, and the profoundest reflection; and we cannot value too highly the men who make substantial additions to its truths. It is given, however, to very few minds to succeed in this department, and we do not expect that any one individual will appear in this age, who will be capable of filling up with certain knowledge all that is at present unknown in the science; of reducing to their first principles all the faculties which are recognised only by their general manifestations; and of elucidating the true relations in which each faculty stands to all the others. In our opinion this will be accomplished only after a long interval of time, and by the successive efforts of many gifted individuals; yet until it shall be realized, it will be impossible to present a perfect, and therefore a permanent, arrangement and nomenclature of the organs.

If, however, every phrenologist who has made a few discoveries, or who has cleared up some doubtful points, shall proceed, in the mean time, to frame a new arrangement and nomenclature for himself, and propose changes, some of which will not stand the ordeal of a rigid and discriminating investigation, he will create obstacles in the way of the science, instead of serving it. He will also diminish the value of his real contributions by mixing them up with propositions that are not

sound in fundamental principle. We, therefore, pay Dr Broussais the highest tribute of respect for the manner in which he has dealt with the arrangement of the faculties, in preserving uniformity in the mean time, leaving the ultimate order for future consideration.

Our opinion is, that the arrangement now most generally in use should be preserved until Phrenology has made a greater advance than it has yet attained. That of Dr Spurzheim prevails in France, in so far as his works and Dr Fossati's translation of Mr Combe's Elements extend; also in Britain and North America, where it is supported by his works as well as by those of Dr Caldwell, Mr Combe, and Dr Macnish; and likewise in Germany, in so far as his works, and Dr Hirschfeld's translation of Mr Combe's System, are known. We would therefore respectfully recommend to those who publish on the science to follow Dr Broussais's example, and retain this order, and add their own discoveries and improvements by way of intercalation. Let them dedicate, if they will, a separate chapter to the subject of the arrangement, and state in it all their objections to the existing order, any improvements which they may propose, and the reasons in favour of the change: Let their proposal be considered and discussed by other phrenologists, and after its merits are generally recognised, it may be adopted with advantage.

There is another point in the execution of Dr Broussais's work which has afforded us much gratification. He is remarkably just and courteous to his fellow-labourers in the cause of Phrenology; while he preserves a perfect independence in the exercise of his own judgment. He generally states what Dr Gall has done, what Dr Spurzheim has added, what Dr Vimont has brought to light, and what Mr Combe and other phrenologists have written, where these individuals have contributed any valuable ideas to the science. He occasionally errs in ascribing the ideas of one writer to another, but this obviously occurs through inadvertence. In exercising his own judgment, he is uniformly respectful. He perceives that Dr Gall, involved in the labours of discovering the functions of the brain, in teaching it, and in defending its claims to public acceptance against the most virulent, unprincipled, and indefatigable opponents, did not live to mature his own science, but advanced some opinions which are not sufficiently supported; described some organs in the lower animals after too slight an investigation; omitted some organs altogether; and occasionally advanced questionable arguments on various topics of the science; but he never loses sight for a moment of Dr Gall's real merits and his situation. He indulges in no self-glorifying exposition of his errors, no severe censures, no boasting of himself, but offers

only a calm, respectful, yet clear and independent, statement of what he conceives to be Dr Gall's errors and defects, and of what he proposes to introduce by way of improvements. He treats all other phrenologists in the same spirit. We are particularly gratified with his frequent references to and quotations from Dr Vimont. He shews obvious pleasure in contemplating this author's genius and stupendous labours; and not a particle of jealousy, or envy of any human being, can be detected in his pages.

In treating each organ, he considers, *1st*, The situation; *2d*, The primitive mental power; *3dly*, Its applications; *4thly*, The effects of its deficiency; *5thly*, The organs that assist it; *6thly*, Those which control or oppose it; *7thly*, He gives examples, consisting of an account of the skulls and casts of men distinguished by possession or deficiency of the organ to a great extent; and *finally*, he treats of the degree in which it exists in the lower animals.

Dr Broussais commences his lectures by a pretty lengthened inquiry into the merits of the metaphysical theories of mind which have attracted the attention of the learned, and claims for Phrenology the superiority over them all as a mere system of Psychology. He places the Scotch philosophy at the head of all the metaphysical systems, and speaks of it as the most natural and most advanced of the old theories of mind. He appears to be acquainted with it chiefly through translations of the writings of Dr Reid; and, in paying this tribute to our countrymen, he shews at once his knowledge of, and his disposition to do justice to the merits of those who laboured in this field of philosophy by an imperfect method, and who nevertheless succeeded in bringing many valuable truths to light. We have expounded, with great pleasure, numerous instances in which Reid, Kames, Smith, Stewart and Brown, have described propensities and sentiments identical, or nearly identical, with those which have been subsequently established by Drs Gall or Spurzheim by observing their connection with particular organs, and we have claimed for Phrenology only the merit of having discovered the existence, local situation, and the influence of the condition, of the organs on the manifestations of these particular powers. But we have been equally zealous in proclaiming the points in which the philosophy of the Scotch school was and is pre-eminently defective, namely, in its total disregard of the organs, and in its whole doctrine regarding the intellectual powers. It is impossible that this philosophy can do any thing else than obstruct the progress of true knowledge and impede education, while it continues blind to the existence and influence of the separate organs of the faculties, and persists in teaching that perception, conception, me-

mory, and imagination, are primitive intellectual faculties, instead of modes or degrees of action of the fundamental intellectual powers brought to light by Phrenology.

Dr Broussais next discusses the labours of physiologists in their attempts to discover the functions of the different parts of the brain ; he shews the imperfections of their methods, and answers their objections.

In treating of Alimentiveness, Dr Broussais, on p. 230, ascribes to Dr Vimont certain observations in proof of the existence of an organ for this function which were first made by Dr Hoppe of Copenhagen. This is obviously done by inadvertence, for Dr Vimont himself, in the work of which Dr Broussais is treating, ascribes them to Dr Hoppe. In like manner, on p. 235, he ascribes to Dr Vimont the first observations made in support of an organ for the love of life, although we shewed in our last Number, p. 493, that Dr A. Combe had anticipated, by several years, the publication of any remarks by Dr Vimont on this subject. Dr Broussais says, "Je vous avoue que je n'ai pas feuillé toutes les annales de la Phrénologie Anglaise, Américaine et Danoise, pour m'assurer si vraiment M. Vimont en a eu la première idée ; mais il l'affirme." We have no doubt that Dr Vimont's ideas were quite original to himself ; and we are far from wishing to enter into any discussion on the subject of these claims.

On the faculty of Constructiveness, Dr Broussais says, that in his opinion, "the tendency and aptitude to construct are a sort of *"ampliation"* of the intellectual powers," p. 263 ; but he adds, "I consider that organs may eventually come to be subdivided, but great time and observation will be necessary in doing so. It appears to me certain, that the fundamental impulse given by this organ is to construct, to modify objects existing in nature, in whatever order they are presented, into forms suited to benefit man or animals, for purposes of utility or enjoyment," p. 269. He mentions that, in the last voyage made by Captain Durville,—Messrs Quoy and Gaymard, who accompanied the expedition in the capacity of surgeons and naturalists, had observed that the organ of Constructiveness is extremely defective in the New Hollanders, whom they visited, and who construct neither habitations, clothes, nor implements of art, for their own accommodation ; while the organ was well marked in the New Zealanders, who show a talent for architecture, and build houses for themselves with a good deal of art. These gentlemen knew something of Phrenology, and were capable of making and reporting these observations.

In treating of the organs of the Moral Sentiments, Dr Broussais ascribes several of them to the lower animals, which

tion to the consideration in which he sees them held by his master himself. Strangers are ranged in an inferior rank; and those of them who are well dressed, and have an agreeable appearance, are received with much less severity than those who are ill clad, or who have a bad expression," p. 352.

These are acute psychological remarks, but to render them available in the cause of Phrenology, Dr Broussais should have accompanied them with some intimations of the existence of organs of Veneration in these creatures. "These facts," says he, "can depend only on cerebral influence, on a sentiment of attachment mingled with veneration for our species;" but he does not indicate the supposed locality of the organ.

In treating of the organ of **FIRMNESS**, he introduces among his examples Casimir Perier. "Although this man," says he, has been the object of many satires and sarcasms, his head is truly one of the best which we possess. First, you see the intellectual region, which is large; but Benevolence, Cautiousness, Veneration, and Firmness, are also amply developed. And certainly, to maintain one's ground for a length of time in the political storms amongst which we live, powerful organs are necessary, and, above all, Firmness must not be wanting." In treating of **CONSCIENTIOUSNESS** (p. 377), he again introduces the head of Casimir Perier, as remarkable for a large development of that organ. "What organs do you see predominating in Fieschi? Self-Esteem and Love of Approbation. This last organ degenerated into vanity in him, because he did not possess a favourable development of intellect. Observe Firmness, which is extremely large; and these organs are sustained by a very energetic temperament."

In the section on **CONSCIENTIOUSNESS** he says: "I submit to you a remark. In certain creeds we find two ideas. Purgatory corresponds to the system of correction, hell to the system of destruction; for the world of mind is traced after the world of matter. Let us hope that public opinion, which now condemns the punishment of death, or the system of destruction, will secure the prevalence of purgatory, and cause hell to disappear from the world of mind." (Applause), p. 373.

Under the head of "*Merveillesité*," or Wonder, Dr Broussais observes, that "Gall had not distinguished this sentiment from Imagination; he confounded this faculty with that which he called the poetic sense or spirit; Spurzheim separated them. Spurzheim has made very interesting observations; and although some persons accuse us of an extravagant confidence and a kind of superstitious credulity in this phrenologist, I do not fear to acknowledge that in my estimation he was a great man. After Gall, he has done most for Phrenology," p. 387. We cordially acquiesce in this tribute. While we pay the homage of our

highest admiration to Dr Gall, we should be guilty of perversity and injustice, if we denied the great merits of Dr Spurzheim.

In treating of the influence of Wonder on the intellectual perceptions, he says, "Gentlemen—we must execute justice on ourselves. Although a physician, I avow that physicians are not exempt from the influence of the marvellous. They personify nature, diseases, and vital forces; they create occult powers, multiply them, and cause them to act like truly marvellous entities. The magnetisers and homœopathists have been cited because the organ of the marvellous has been observed to be very prominent in their heads. How unfortunate for some men that we have physical indications which enable us to recognise particular aptitudes, and to realize in practice the verses—

" Et ne devrait-on pas à des signes certains
Reconnaître le cœur des perfides humains ?"

But let us not condemn too exclusively these two classes of intellectual pursuit. There are some facts which serve as foundations to animal magnetism and homœopathy; but these facts are exaggerated by the votaries who pursue these subjects. I beg of the homœopathists, if I have the honour to address any, not to be offended with my remarks. I have tried homœopathy myself, and do not refuse to direct my attention to all facts in homœopathy and animal magnetism that shall present themselves; but I cannot help the fact that in determined and exclusive homœopathists, and in animal magnetisers who occupy themselves with nothing but magnetism, phrenologists have observed a large development of the organ of Wonder. In stating this, I am only the historian of facts," p. 399.

In his observations on Locality, he exhibited a cast, and said—"Voilà un bibliothécaire d'Edimbourg, nommé Frazer, qui était remarquable par la facilité avec laquelle il se représentait les particularités de l'édifice où il était employé, les rayons de la bibliothèque où se trouvait chaque livre. Il était très renommé sous ce rapport," p. 547. There is apparently some mistake as to this cast; at least we know neither it nor the individual described.

Dr Broussais is of opinion, that "in the greater number of the perceptive (or, as he calls them, the *receptive*) organs, there is a part destined to perception, and another whose function is to react on the muscles which produce the manifestation of the faculty; an idea," says he, "which corresponds to the doctrine of the phrenologists that the lower degree of development of an organ corresponds to perception, and a higher degree to imitative reproduction," p. 607. The power of James Milne and others to distinguish some colours while they cannot perceive

others, would lead us to the inference that there are separate fibres even for perceiving different colours.

Dr Broussais treats with great clearness and much ability the organ of Language, and discusses with success the extent to which animals possess this faculty. "The animals," says he, "have in general one accent for expressing terror, another for calling for assistance, another for expressing despair; one, I believe, for exciting compassion, one for expressing joy, one for calling to partake of the prey; one or several for inviting to love; and perhaps still others; but these modulations are inspired by their instincts, which act on their organs of voice, and which excite the same instincts into action in those individuals of their own species who hear them, and even in man, in consequence of the relations between their organization and ours. There is no evidence that they use conventional signs, applicable to each separate object. This would imply the necessity of an apprenticeship; yet the chicken which has just burst the shell interprets as successfully the cry of its mother who calls it to pick grain as it will do after weeks of experience. The animals, then, have only accents proper to each of their wants, to each of their instincts: for each instinct they have accents of two general descriptions; one to express that the feeling is satisfied; another to signify that it is not so, or that there are obstacles in the way, and those accents are graduated according to the degree of intensity of the emotions. Such is the language of animals," p. 619.

In the section entitled "*DU MOI, DE LA VOLONTE', DE LA LIBERTE', ET DE LA RAISON.*" Dr Broussais displays very considerable metaphysical acumen. He regards the idea expressed by "*moi*," or that of our personality and identity, as the result of the reflective organs, especially of that of COMPARISON. "The child," says he, "at first speaks of himself in the third person, and by his proper name. He says, 'give John this,' or 'allow John to go,' meaning not another child named John but himself; and it is only after the organs of reflection have been developed that he begins to form notions of himself as an individual being, distinct from all other beings, and to use the first person singular of the verb," p. 686.

"WILL is assuredly an act of the intellect," says he, and "LIBERTY is one of the modes of its action." The reflective faculties constitute *I*; and "WILL is an expression of the *I* in a state of activity. *I will* may be rendered *I AM WILLING.*" "LIBERTY belongs to the *I* as well as *will*, and is one of its modes of action." Any cause or circumstance that overcomes the force of the reflective faculties abridges liberty to a corresponding extent; the passions abridge it; it yields before natural necessities, such as the necessity of breathing, of vomiting,

of sleeping, and of performing a number of natural acts. Hence men have will and moral liberty in proportion to the development of their reflecting organs. If these be small, "the individual will be truly free only in so far as indifferent actions are concerned; and will not be so in regard to important acts. He will yield successively to all his passions in proportion as they become predominant, and to those external influences which circumstances shall place in his way. In examining his head, the phrenologist will find the most perfect accordance between the predominant organs of his passions and the aberrations of his conduct; between the feebleness of his reflective organs, and of firmness, and the mobility of his character," p. 693. "En un mot, les grands intérêts ou les grandes passions guident le moi et l'entraînent, avec la volonté et la liberté, pour tous les actes importants de la vie de l'homme; de sorte que la liberté ne nous reste pleine et entière que pour les actions de peu d'importance, ou qui du moins nous paraissent telles."

The section "DES ABSTRAITS," or on the formation of abstract ideas, is also distinguished by much talent; but we cannot enter into its details. This and the preceding section prove that Dr Broussais has fully appreciated Phrenology as a system of mental philosophy, or Psychology, and that he possesses ability to apply it with success to the elucidation of the most difficult problems of metaphysics, as well as to explode the absurdities of the old school. His remarks on our notions of "substance," p. 654, are particularly clear and sound.

After advancing the doctrine that the same fibres which perceive an object serve in recalling it by memory, Dr Broussais adds, "I find in Mr Combe's Elements that a Dr Watts, of whom I know nothing, has been the first to express this idea: I know neither him nor the time when he published this explanation; but it is quite certain that it appears in my work on '*L'Irritation et la Folie*,' published in 1828." Dr Isaac Watts is the author alluded to, and the remark occurs in his Logic. As he died on the 25th November 1748, he has an unquestionable claim to priority in the announcement of the idea, although we have no doubt that it was original also to M. Broussais.

In the section "DE LA MÉTHODE D'OBSERVER," &c., which corresponds to the section on "the Combinations" in the English works, there are some valuable remarks. He treats of eight varieties, and designates the *fifth* as the *executive* combination (*têtes exécuteurs en tous genres*). This consists in large perceptive and moderate reflecting organs, combined with large organs of Imitation, Wonder, and Ideality. He remarks, that these heads invent nothing, but are admirable executors of the inventions and ideas of others, whether in music, paint-

ing, acting on the stage, or in other departments of arts. Poets and painters, who present beautiful pictures, of which the fundamental conceptions are borrowed, belong to this class.—P. 775.

We have said enough to recommend this work to the notice of all phrenologists, and we thank the author for the pleasure and instruction which the perusal of his lectures has afforded us.

ARTICLE VI.

AN INTRODUCTION TO PHRENOLOGY. By ROBERT MACNISH, LL. D., Author of "The Anatomy of Drunkenness," and "The Philosophy of Sleep," and Member of the Faculty of Physicians and Surgeons of Glasgow. *Second Edition*, enlarged and illustrated by thirty-four Engravings, 12mo, pp. 223. Glasgow, John Symington and Co.; Edinburgh, Oliver and Boyd; London, Whittaker and Co.

THIS work appears breathing with life, spirit, and observation, as if its author were himself ushering it into the world. There is no indication within it, or announcement about it, that would lead the reader to believe that the mind which had conceived it had fled, and that the hand which had written it is cold in death; yet such are the facts! The work was just completed, and the last sheets of the appendix prepared for the press, when, in the beginning of January 1837, the gifted author was seized with influenza, which speedily degenerated into typhus fever, and on the fourteenth day after the attack he died. One of the distinguishing characteristics of Mr Macnish's mind was vivacity. Whether he gave way to ridicule and sarcasm, of which he was a master, or to fancy, with which he was brilliantly endowed, or to tenderness and affection, which he felt strongly and could touchingly express, there was always a spring of life about him that vivified his pages, and animated and delighted his readers. This quality abounds in every page of the present work, and invests it with a new and extraordinary interest when we regard it as the last words of a talented intellect now in the grave.

Dr Macnish possessed a high bilious and nervous temperament, and a remarkably robust frame of body. He was rather below the middle stature, but had large lungs, a full-sized brain, and extraordinary muscular strength. His propensities were large, particularly Combativeness and Destructiveness; but he possessed a large development of Benevolence, Conscientiousness, and Firmness, with a full anterior lobe remarkable for the predominance of Comparison and Eventuality. Ideality

also was large. No man was better acquainted by experience than he with the struggle between the higher and lower elements of our nature, and no one more resolutely maintained the supremacy of the moral and intellectual powers in his practical conduct. In his earlier years his talents were devoted chiefly to poetry and tales of fancy, of which he wrote much in the leading periodicals of the day. Subsequently he produced the "Anatomy of Drunkenness," and "The Philosophy of Sleep," works combining much of the pictorial power of the poet, with the soundness and solidity of the philosophic observer, and characterized throughout by that affectionate regard for human welfare which bespeaks the enlightened philanthropist. At a still later period he became alive to the truth and importance of Phrenology, and to the effects on human society which it was calculated to produce. He studied also with intense interest Mr Combe's work on the Constitution of Man, and informed the writer of the present notice, that that book had opened up to his mind a new view of life and the world, and given to his thoughts and aspirations higher interests and aims than they had ever before possessed. His pursuits in the region of fancy then appeared to him unprofitable, he felt the superiority of the principles of science, and stated that he was conscious of a revolution taking place in his whole mental condition. His "Introduction to Phrenology" was the first fruit of the new direction of his mind; and this second edition was destined too soon to be the last; but, by comparing it with the first edition, the reality and extent of his progress in this science will be very apparent. This edition is greatly enlarged, and conspicuously improved. It is really an excellent introduction to the study of Phrenology, and it is impossible not to lament deeply the loss of such a gifted fellow-labourer at the early age of thirty-six, when he was just entering so successfully on his phrenological career.

The work is dedicated to Mr Robert Cox, as a testimony of friendship by the author, and we know that during its progress Mr Cox rendered every assistance in his power to his respected friend in order to enable him to produce it as correct and complete as possible. Mr Cox revised the few sheets that remained in proof at the time of the author's death.

The "Introduction" to the work contains a succinct and well written notice of the author's conversion to Phrenology, and of its present condition. "My first ideas," says he, "of Phrenology were obtained from Dr Gall himself, its founder, whose lectures I attended in Paris during the year 1825. Before that time I, in common with almost all who are ignorant of the subject, spoke of it with great contempt, and took every opportunity of turning it into ridicule. The discourses of this great

man, and several private conversations which I had the honour of holding with him, produced a total change in my ideas, and convinced me that the doctrines he taught, so far from deserving the absurd treatment which they then generally met with, were in themselves highly beautiful as expositions of the human mind in its various phases, and every way worthy of attention. Much reflection and many appeals to nature since that period have satisfied me of their truth."

In enumerating the men of eminence who have embraced the science, he mentions the celebrated Berzelius of Stockholm. The exact extent to which this distinguished chemist has become a convert is stated in a letter from himself, which is in our possession, dated 29th April 1836, in which he says, "I have studied Phrenology only a very little, and always in a purely physiological point of view. Although I am convinced that each separate portion of the brain discharges a particular function, and that we may draw inferences of great probability from the varieties of form which the skulls of different persons present, yet I have never attended to the philosophical reasonings which have been deduced from phrenological observations, and I have ceased to follow this science in its branches which go beyond the boundaries of physiology."

The work contains an account of the different organs, with their functions, uses, and abuses, and the development is illustrated by cuts ably executed on wood by Bruce of Edinburgh.

The section entitled "Miscellaneous Questions" is the most original part of the work, and it is very interesting. We select the following as a specimen.

"Is the exercise of any of the faculties pernicious?"

"This depends upon whether the degree in which they are exercised amounts to an abuse. All the faculties are in themselves good, if legitimately employed. The Creator endowed us with the whole of them that they might be rationally gratified; and any man who affirms, that even a single one ought to be utterly stifled or blotted out, as it were, from the human mind, is in reality offering an insult to the Divine Being by whom that mind was created. Some well-meaning but unenlightened persons imagine that such innocent occupations as dancing, music, mirth, and theatrical representations are offensive in the eyes of God. Now what is the tendency of this allegation, but to charge the Almighty with creating a number of useless or improper faculties? We have organs of Tune and Time, which inspire the love of music and dancing, and induce us to visit concerts and balls. We have an organ of Wit whose function is to give rise to mirthfulness. We have one of Ideality, which communicates poetic rapture, and experiences gratification in the magnificent performances of a Sid-

dona, a Talma, or a Kean. If we do not allow the passion for these amusements to go to excess; if we indulge it moderately, avoiding abuse of the faculties from whence it springs, we are not only not doing what is morally wrong, but we are doing what is positively right, in so far as we thus obey a rational and beneficial impulse implanted in our minds by the Author of nature, and wisely intended for our good. Dancing, music, poetry, and theatrical representations of a moral character, when had recourse to in the intervals of more urgent and laborious pursuits, have an excellent effect on the brain. They innocently and agreeably stimulate the different organs, especially those of the Sentiments and Intellect, and their tendency, instead of being pernicious, is highly favourable to virtue. What would be thought of the sanity of that man who proposed that the eyes should be perpetually blindfolded, and the ears stuffed with cotton, because we may misemploy the former in willfully witnessing scenes of cruelty, or the latter in listening to obscene songs or profligate conversation? Those who proscribe the legitimate gratification of any of the faculties are acting a part equally foolish.

What is the cause of mental precocity?

"It has its origin in premature development or excitement of the intellectual organs. The source of such prematurity, however, is rather obscure, but it seems to be connected in general with a high nervous temperament. Lymphatic or bilious children are seldom precocious. Precocity is peculiarly common among the scrofulous, rickety, and consumptive. These states of constitution are accompanied with an irritable state of frame, which extends its influence to the brain, and thus causes a premature manifestation of its functions.

Why do precocious children generally turn out very ordinary as adults?

"It is a law of nature, that when an organ is vehemently exercised, before acquiring full consistency and strength, its functions become impaired. A horse sent to the turf very young has its constitution often ruined, and the same is the case with youthful prize-fighters and recruits. The brain is no exception to the general rule.

Ought the mind of a child who exhibits marks of early genius to be much exercised?

"Quite the reverse. We ought to consider the brain of such a child as in a state of unnatural excitement bordering on disease; and if it be fond of thinking or studying much, the habit ought rather to be checked than encouraged. If we work the brain much, it is ten to one that it gets diseased, and the child is either cut off early, or lives to be for ever after a very common-place person, perhaps a blockhead. Hydrocephalus, or

water in the head, is sometimes produced in children by over-exertion of the brain.

"Does the same rule apply to dull children?"

"Not so powerfully. The minds of these children ought to be exercised, so as to give health to, and stimulate the brain; they need the spur instead of the bridle. Even here, however, there is a limit which it is dangerous to transgress. The brain of no child whatever ought to be much worked; moderate exercise is all that should be attempted. Very great evils result from school education being too severe and too early begun.

"How happens it that dull children often prove very clever as adults?"

"From the fact, that in some individuals the intellectual organs are slow of reaching maturity, either from late growth or late excitement. Some minds are very late of being evolved. Gessner, the Swiss poet, was, at the age of ten years, declared by his preceptors incapable of any attainment; and Swift, Thomson, Sir Walter Scott, and Dr Johnson, were very dull lads. Massillon, Byron, Gibbon, and Voltaire exhibited in boyhood and youth no indications of more than ordinary talent; while Sir Isaac Newton, according to his own account, ranked very low in the school till the age of twelve, when his superior powers began to develop themselves. Persons in whom the reflective organs predominate over the perceptive, are more likely to be considered dull in youth, than when there is an opposite configuration of brain; the former, reflective organs, as already mentioned, being longer of attaining maturity of action than the others."

ARTICLE VII.

ON THE NATURE OF THE EVIDENCE BY WHICH THE
FUNCTIONS OF DIFFERENT PARTS OF THE BRAIN MAY
BE ESTABLISHED. By GEORGE COMBE.

In perusing the remarks of physiological authors on the functions of the brain, every one must have been struck with the great importance which they attach to the experiments of Flourens, Majendie, and others, and the contempt with which they have regarded the observations and reports of phrenologists on the same subject. The preference which they have shewn for the experiments alluded to is obviously owing to their having inconsiderately committed themselves against Phrenology, and to a natural desire, thence arising, to be able to discover the functions of the different parts of the brain by other than phrenological

means, so as at once to wipe off from themselves the stain of ignorance, which they cannot conceal, and to deny to the phrenologists all merit in accomplishing this end. The same feeling makes them shut their eyes and ears to the evidence which phrenologists place before them. Their rejection of it, however, is not an act of their understandings, but arises from a revulsion of their self-esteem at the pretensions of a class of men whom they have ridiculed and condemned, to instruct them, even by the humble method of reporting facts in nature which they have observed.

While, however, these feelings unquestionably operate in many of the more advanced physiologists, there is a younger class of inquirers who perceive that the experiments alluded to, have not accomplished the ends for which they were instituted, and who, less hostile to Phrenology, are willing to embrace truth, by whosoever presented; but who, from the inherent difficulties of the question, are at a loss to decide on the real merits of the experiments, and on the value of the cases reported by phrenologists. The following remarks are offered to assist this class of inquirers in forming a judgment for themselves.

The established practice with physiologists is, to cut through, or cut away, different nerves and different portions of the brain in living animals, and to observe the results. The experiments are first made and announced by one experimenter, such as Flourens, Majendie, or Sir Charles Bell; they are then repeated by several other inquirers; and if all obtain the same results, the facts are generally received as established physiological science. If contradictory reports be made, further experiments are resorted to; and belief is suspended until a strong body of concurring testimony appear in favour of one conclusion. In some instances this method appears adequate to attain the end in view. When Sir Charles Bell cut the root of a motor nerve, and saw that the power of motion was lost in the muscles on which it was ramified, and when he cut across a nerve of sensation at its root, and observed that sensation was lost, the evidence of the functions of these nerves was complete. But four conditions are necessary to the success of this method of investigation:—*First*, The part destroyed must be a distinct organ with a specific function; *secondly*, The part injured must be such that it may be cut without necessarily involving the disorder of the functions of a variety of other parts; *thirdly*, The functions of the organ to which the cut nerves are distributed must be known; and, *fourthly*, After the operation, these functions should be completely within reach of observation. These conditions were present in Sir Charles Bell's experiments in irritating or cutting roots of the nerves of motion and sensation. For, 1st, These nerves were distinct organs, each having a specific function;

2dly, It was possible to cut a branch of the fifth pair, or a root of a spinal nerve, without involving the functions of the nervous system in general in derangement ; 3dly, It was known that the muscles manifested voluntary motion and sensation ; and hence, when one of these powers was suppressed, it was possible to distinguish its absence ; 4thly, The muscles on which the cut nerves were ramified were so much within reach of observation, that they could be forced into action or sensation at the will of the experimenter, and hence he could discover what effect had resulted from his operations.

When, however, Flourens proceeded to cut out, in living animals, the cerebellum and different parts of the hemispheres of the brain, these conditions were wanting. For, 1st, He could not say whether the parts were or were not distinct organs, executing specific functions ; 2dly, These parts could not be laid open and cut away without involving the functions of the nervous system generally. This proposition is now admitted by Sir Charles Bell and many other physiologists. 3dly, He did not know beforehand what mental power the part destroyed manifested, and he could not therefore judge of its suppression ; and, 4thly, The animals in whom the cerebellum and parts of the convolutions were destroyed, were not, after the operations, in a condition of health, or placed in external circumstances calculated to shew whether they were or were not capable of manifesting any propensity which might be connected with the injured organs. There is not a shadow of evidence, for example, that these creatures manifested the propensity of *Amativeness* after the cerebellum was destroyed. Yet, if our doctrine be correct, that this feeling is connected with that organ, the suppression of the manifestations after the abstraction of the organ, might, according to sound principles of induction, be viewed as the direct result of the destruction of the organ.

The experimenters proceeded on the assumption that nothing was known concerning the functions of the cerebellum and of the cerebral lobes, and yet they expected to discover the functions of these parts by observing the powers which were not manifested when they were destroyed. The reasonableness of this expectation may be judged of by a short analogy. Suppose that an instrument capable of emitting an unknown number of sounds by means of an unknown mechanism, were presented to one of these operators, and that his object was to discover, by experiments, what sounds it was capable of producing, and by what precise pieces of machinery each sound was emitted. Imagine that he opened its covering, and seeing a number of wheels and springs, he, at random, broke two or three of them, and that he then set the machine agoing. If it refused to emit *any* sounds, he would discover that he had destroyed it

all. But if it still emitted twenty or thirty sounds, how could he tell what sounds were wanting, when he did not know the original number? And how could he discover by this silence the particular sounds which the broken wheels and strings were calculated to emit when entire? Yet this is the precise condition in which the experimental physiologists stand in regard to the faculties of the mind and brain. They do not know what propensities, sentiments, and intellectual powers the mind is capable of manifesting in its entire compass, and they do not know what particular powers are manifested by each particular part of the brain; they therefore proceed to discover unknown faculties, by destroying at random convolutions whose functions are unknown! This is precisely like breaking the strings of an unknown instrument to discover the notes attached to these strings. The philosophical maxim, *Ex nihilo nihil fit*, is set at defiance; for they destroy the organ, and expect that, after it is destroyed, it will reveal to them its function. To bring into clearer light the inadequacy of this method, we may suppose that the physiologist is presented with a machine capable of emitting, not an unascertained, but a definite number of sounds, say thirty-five, by means of thirty-five distinct strings, every one of which is visibly separate from the rest. It is clear that, even in this more favourable case, it would be necessary for him, in order to discover the sound emitted by each string, to proceed as follows: 1st, To cause the machine, while entire, to emit all its sounds, and to become so familiar with each that he could recognise its presence or absence with positive certainty. 2dly, When he cut a particular string, to cause the machine to emit all its sounds so far as it retained the power of doing so, in order that he might judge *what* sound was now wanting:—This would be indispensable before he could have sufficient reasons for inferring that any particular sound depended on the string which he had destroyed. If he were not acquainted with all the sounds, each by itself, when the machine was entire, he could not tell which sound was wanting when a particular string was broken. Or if the machine were so constructed that he could not break one string without rendering several more mute, he could not discover which of the sounds which were now wanting was connected directly with the string which he had cut, and which were only incidentally involved in its fate. And, 3dly, If he had it not in his power, after having cut one particular string, to cause the instrument to emit all the other sounds which it was still capable of emitting, he would, if possible, be still more completely obstructed in his attempt to discover the particular note attached to the particular string on which he operated, for he would want the first element for observation, the presence of sounds to be compared with the strings which remained entire. If the bro-

ken wire gave only a few discordant jingles, he might be sadly in error, if he imagined these sounds to be its proper notes.

The only way in which he could hope to succeed by this method would be, *first*, by becoming familiarly acquainted with each of the thirty-five notes by itself. *2dly*, By ascertaining that each string was so far independent of all the others that he might cut it, without impairing them. And, *3dly*, by placing the machine in circumstances calculated to elicit all its sounds at distinct intervals, by making it emit them accordingly, and then observing which of the thirty-five was wanting.

When we apply this illustration to the case of the physiologists we perceive,

1st, That they are unquestionably ignorant of the character of each primitive propensity, sentiment, and intellectual faculty, which may be manifested by the mind. Hence, on seeing a certain number of manifestations, they cannot tell to what primitive powers they belong, nor how many are still wanting to complete the manifestations of the full catalogue of primitive faculties. In this condition of ignorance, they can never tell whether any particular power is the sole faculty suppressed or not, and therefore they cannot say that that particular power, and no other, depends on the part of the brain which they have destroyed.

2dly, They are avowedly unacquainted with the particular parts of the brain which manifest particular primitive powers. Hence, in cutting away portions of the brain, they may destroy half of one organ and half of another, or one entire organ and half of each of two others adjoining it. They are not convinced that the organs are double, and do not cut away precisely the corresponding portions of the brain in the two hemispheres. In their ablations they resemble an experimenter on the supposed machine who should smash a few wheels and strings at random, and then listen to discover what sounds he had rendered the machine *incapable* of producing. By their incapacity to remove precisely the two organs of any one faculty, and neither more nor less, they can never place themselves even in the condition of the experimenter, whose machine possessed thirty-five easily distinguishable individual strings on which he could operate with a certainty that he was cutting only one at a time. Their operations are really smashing wheels and strings at random, and then listening to discover what sounds shall *not* be emitted.

3dly, After having destroyed a particular part of the brain, they cannot make the animal manifest in distinct succession all its propensities, sentiments and intellectual powers which it may be still capable of manifesting. They cannot cause it to love its mate of the opposite sex, to love its young, to fight, to conceal, to fear, to build, to sing, to be proud, at their pleasure; and if these powers were not manifested after the ablation, the legitimate

conclusion would be, that they all depended on the portion of brain abstracted. As the same non-manifestation would follow from cutting out a great variety of parts of the brain, the conclusion would, by this method, be reached, that all of these powers depended on each part cut away in succession, or that each part manifested all the faculties.

4thly, The physiologists do not pretend that they can cut out particular organs from the brain without impairing the functions of other organs. It is impossible, therefore, to compare particular manifestation lost with particular parts cut out.

For these reasons, while I admit the competency of experiments by vivisection to discover the functions of the nervous system, where the four conditions before described exist, viz. *1st*, Where the part cut is a distinct organ; *2dly*, Where the part can be cut without seriously involving other parts; *3dly*, Where the functions of the organ on which the cut nerves are ramified are known; and, *4thly*, Where it is possible to compare the state of the function after the operation with its condition before it; yet I deny its competency to lead to any valuable results where these conditions are wanting; and I respectfully maintain that all of them have been wanting in the experiments performed by ablations of the cerebellum and of particular parts of the brain. I consider, therefore, that this method is fundamentally defective, unphilosophical, and unproductive, when relied on for discovering the primitive faculties connected with particular parts of the brain.

These observations are all fortified by the following excellent remarks of Sir Charles Bell. "I have endeavoured to discover the truth by the examination of the structure, and the observation of the phenomena of life, without torturing living animals. It is too common a belief that, in physiology, experiments on living animals, is the best and surest way of pursuing an enquiry, although it be certain that the supposed issue of experiments is as much affected by the preconception, as the process of reasoning can be. The experimenter on brutes is not to be called a philosopher merely because he goes counter to the natural feelings of mankind; nor is he the more entitled to favour, that he gives a character of cruelty to the Medical Profession, thereby contracting its sphere of usefulness.* *It is but a poor manner of acquiring fame, to multiply experiments on brutes, and take*

* "That I have known the best and most virtuous men hold a different opinion, I must allow. But I have not been able to suppress the expression of my sense of this matter, that dissections of living animals attended with protracted suffering must be wrong. I can affirm, for my own part, that conviction has never reached me by means of experiments on brutes, neither when I have attempted them myself, nor in reading what experimenters have done. It would be arraigning Providence to suppose that we were permitted to penetrate the mysteries of nature by perpetrating cruelties which are ever against our instinctive feelings. I am, therefore, happy in believing that the

the chances of discovery. We ought at least to try to get at the truth without cruelty, and to form a judgment without having recourse to torture. At all events, it is our duty to prepare for experiments upon living animals by the closest previous application of our reason, so that we may narrow the question, and make it certain that advantage shall be gained by the experiment.*

When Dr Gall started in his career of discovery he was equally ignorant of the fundamental faculties and their particular organs, as the physiologists in general now are; but his method of removing this ignorance did not involve self-evident absurdities and impossibilities. He met with living and healthy men who were capable of manifesting a great variety of faculties at pleasure, except one, say Tune. He met with others who had an instinctive facility in manifesting this faculty, but who were deficient in others. Here was a power so specific that its nature could not be mistaken, and here were individuals who were able and willing to manifest the faculty so far as they had the power as often as he pleased. On comparing their heads, he observed that the one had a particular part of the brain large, and the other had that same part small, and that the power of manifestation was in proportion to the size of the part. This case was the same as if Dr Gall had met with two self-acting and intelligent machines capable of emitting a variety of sounds by distinct strings, and had found that in one of them a particular string was very large and strong, and in the other that it was broken; and had, by observing the notes which each emitted, discovered that a particular musical note was deficient in the machine whose string was broken, and vigorous in that whose string was large and sound. There is neither absurdity nor impossibility here. Men with particular organs deficient, such as Milne with Colouring, Haggart with Conscientiousness, are instruments having particular strings damaged, yet capable of sounding all their other notes; while other individuals, in whom these same particular organs are very large, are like machines in which these strings are remarkably strong, and as they are intelligent and self-acting machines, and as a defect in one particular organ does not impair the others, we can induce them to sound their notes, and hence we may compare the power of manifestation with the size of the string until we are satisfied.

The circumstances which I have here mentioned shew that it is in vain to expect that cases will ever be recorded of the artificial abstraction of particular parts of the brain, and the suppression thereby of particular powers, so as to produce a satisfactory physiology of the brain; and if physiologists will not examination of the natural structure, and the watchful observance of the phenomena of life, will go farther to give us just notions in physiology than the dissections of living animals."

* An Essay on the Circulation of the Blood, by Charles Bell, &c. 1819. P. 25.

condescend to resort to the observation of the size of particular parts of the brain, as indicated by the skull during life, and to the comparing of that size with the power of manifesting particular mental faculties, they must remain long uninstructed regarding the functions of the different parts of the brain. They have a great aversion to this method of proceeding, because they conceive it to be particularly liable to fallacies. There is the want, they say, of that precision which is so desirable in science: There is no measure of the size of an organ. It cannot be estimate in inches, nor by weight. Again, there is no standard by which to try the force of the manifestations. They therefore reject the whole method as empirical and unphilosophical, and incapable of leading to scientific truth.

We at once admit that the two elements in our method of investigation are both in their own nature *estimative*. We cannot accurately measure or weigh the size of particular parts of the brain during life; but we affirm, that if an average natural endowment of the observing faculties be possessed, we may, by due practice, learn to *estimate* it with sufficient precision to lead us to positive conclusions. Again, we confess that we cannot measure the force of each manifestation of the faculties by ounces or inches, but we maintain; that, by proper instruction and the exercise of the understanding, we may *estimate* it also. Phrenology, in its evidence, rests on the same foundation as the practice of medicine. The existence of disease cannot in general be determined by weight or measure, and the characters of diseases can be judged of only by their appearances, or the symptoms which they present. The organs affected,—the degree to which they are affected,—and the extent to which medicines act on them, are all *estimated* by the exercise of observation and reflection on mere symptoms. In the practice of medicine, anatomy, physiology, and pathology shed their lights to help the judgment in its estimates, but they do not reveal the theory of medicine *à priori*, nor do they render it a demonstrative science.

The same general laws of evidence must necessarily apply to the study of Phrenology. The mental manifestations are not ponderable nor measureable any more than the capacity for pain or pleasure, or the powers of hearing or sight, are so. We *estimate* the degree in which these susceptibilities and capacities are possessed by different individuals, and regard our knowledge as substantial, and we must of necessity learn to *estimate* the force of the mental manifestations by a similar exercise of observation and reflection, or remain for ever ignorant of mental science. Again, the differences between the forms of the particular organs, and between their sizes when large and small, are so palpable that it is absurd to deny the possibility of distinguish-

ing them in favourable cases ; and, in proving a science, we are not only entitled, but bound by the dictates of common sense, to select the simplest and the most striking cases, *instantia ostensiva* of Bacon, as best calculated to bring the truth to light.

It must therefore be by the exercise of observation and reflection, or by the practice of the method of *estimating*, that we shall discover the primitive faculties connected with particular parts of the brain, if ever we shall discover them ; and it will be only after these discoveries have been made that anatomy, physiology, and pathology will shed light on our path. Until we have followed this method they are as little adapted by their own beams to reveal the functions of the different parts of the brain as they are to unfold *a priori* the symptoms and best modes of treatment of diseases.

Those individuals, therefore, who object to the evidence on which Phrenology is founded and supported, appear to me not to understand the nature of the inquiry. In the phrenological books, there is as clear a specification of the localities and appearances of the organs, of the functions which they perform, and of the effects of their different degrees of development in point of size, as there is in treatises on the practice of physic of the organs affected, and the symptoms which constitute particular diseases. The authors of medical treatises do not record all the cases, by which the propositions which they announce were first ascertained, and may be still traced. They assume that the inquirer has qualified himself, by previous study, for understanding and appreciating what they describe, and they refer him to the sick beds of the people for verification of their remarks. We teach our student how to observe, and refer him to the active theatre of the world, where he will find faculties manifested, and developments of organs exhibited, to an unlimited extent, and we bid him verify our observations there. We refer him to prisons and lunatic asylums, and to pathological cases reported by phrenologists, for evidence of excessive, of deficient, and of diseased manifestations. The opponents, however, object to pathological cases reported by phrenologists, because they say they are interested in representing them in favour of their own views.

We may truly say, in this science, that every man who is not for us, is against us ; and the objection might be urged, that we cannot trust to reports made by antiphrenologists, because they are interested in finding evidence to justify their opposition. But I go farther, and maintain, that the most honest *non-phrenologist* is incapable of reporting pathological cases calculated to establish the functions of the different parts of the brain. A *non-phrenologist* is a man who has not studied Phrenology, and who is ignorant of its details. Now, such a person does not know the

primitive faculties of the mind, nor their modes of manifestation, and he does not know whether different parts of the brain have or have not different functions. He cannot point to one portion of the convolutions, and say this manifests such a power, and, when it is diseased, *this* power, and no other will suffer. He cannot say that it is an organ at all. In short, persons, ignorant of phrenology, that is, of the situations of the mental organs, and their healthy manifestations, are no better qualified to report accurately pathological cases of these organs, with a view to the elucidations of their functions, than a person would be to report pathological cases of the abdomen, who only knew in general that it contained the organs of digestion and assimilation, but without being aware that one part serves for chymification, another for chyliification, another for the secretion of bile, and a fourth for absorption, and so on. For these reasons, it is only phrenologists who are capable of reporting such cases, so as to give them a bearing on the subject. In the case of Mr N., reported in the Edinburgh Medical and Surgical Journal for October 1836, and in this Journal for December last, Mr Craig, so far as can be discovered by his report, did not know that the function of a part of the posterior lobe of the brain, which he saw extensively injured, was to manifest combativeness, and, in consequence, he made no mention in his printed report, whether Mr N.'s temper was or was not affected by the disease of that part. In consequence of knowing the function of that part in health, I saw the importance of investigating this point minutely, and ascertained that the manifestations were as morbid as the organ. Again, Mr Craig reported, that Mr N. spoke ten, and knew four more languages, yet, although he had his brain in his hands, he did not report whether any particular part of the brain was large or small in concomitance with that great gift. Apparently he did not know, because he had not studied, where any convolution connected with that talent was to be met with. From previous study, I was informed that a certain convolution lying above each superorbital plate was regarded as the organ of a faculty for languages, and, in consequence, I earnestly observed it size, and was able to report that it was very large. I select this case, not for the sake of boasting, but because it is fairly illustrative of my proposition, that a person who has not ascertained the situations of the different mental organs, and the manifestations which accompany them in a state of health, is not capable of reporting pathological cases of these organs with success. We should estimate at a very humble value pathological reports on the organs of the thorax, made by a person ignorant of the separate functions of the lungs, heart, and bloodvessels, however high his general talents might be; and equally valueless and inconclusive will pathological reports relative to the brain in all

probability appear, when made by those who are ignorant of the uses of its different parts.

I therefore respectfully maintain, not only that the principles of investigation adopted by phrenologists are sound, and adequate to attain the ends in view in employing them; but that there is no other method by which the primitive faculties attached to particular portions of the brain can be discovered.

ARTICLE VIII.

CASE OF A. P., A DEAF AND DUMB BOY.

THE uneducated deaf and dumb have no knowledge of our language, and can only express their thoughts and desires by gesture, as nearly representative of such as they can make them. Thus deprived, in a great measure, from communicating with their fellow beings, or gaining any knowledge from books, the first and great aim in their education, is to give them the power of comprehending and using language as a means of communication. An instructor, under such circumstances, has a good opportunity for observing the different degrees of aptness, if such exist, in acquiring this knowledge, and whether it be always in proportion to the powers exhibited in acquiring other kinds of knowledge. There is also an opportunity of observing whether these powers, and the development of the phrenological organs, be in harmony.

In the case under consideration, the boy, who is about fifteen years of age, has been at school upwards of four years, and the progress he has made in the knowledge of words is extremely limited. One with a moderate capacity for such acquirement would do as much in half the time. But this want of talent is confined to language. In many other branches of knowledge he is decidedly superior to most of the children in the school. He draws correctly and with ease. In calculations of number he is about on an average with the generality. What, however, he most delights in, is in constructing pieces of mechanism; in this occupation he would be constantly employed, and he is very clever in the use of tools. Any piece of mechanical work he sees, if it be not very complicated, he can comprehend, and imitate. The phrenological development, I think, on examination, you will find in perfect accordance with the character I have shortly given. His perceptive organs are all good, with the exception of Language, which is certainly small. Individuality, Weight, and Size are large, Constructiveness is very large, and in satisfying this propensity is his chief pleasure.

I remarked, that the mode of communication used by the Deaf and Dumb, when unable to apply language, is that of imitative signs. There is in this often a great difference exhibited by different children, in the minuteness and clearness with which they relate what they wish to express. Some give only an outline, as it were, of the circumstances, the more prominent features; others will not only give the outline, but fill up the detail, with striking exactness, putting in every little incident which can illustrate or give character to the representative. This power of minute description I have always found, as might be expected, accompanied with large Individuality—and this organ, combined with Form and Imitation, gives the power of expressing it with character. These organs are well developed in the case under consideration, and the boy has a corresponding power of expression in mimic language.

W. R. SCOTT,
Institution for the Deaf
and Dumb, Doncas-
ter, Yorkshire.

Cast of the Skull of a New Zealander.

Mr Scott at the same time presented the Phrenological Society with a cast of a skull of a New Zealander, about whom he communicated the following particulars:—"I was told that the savage was one who was a leader in the massacre of the crew of the Boyd, which took place in 1809, and that he was cruel, determined, and cunning. The largeness of the head would indicate a strength and force of character. The largest portion of brain, however, is in the basilar and occipital parts. The coronal having a very pent-house form. You will observe a part on the right parietal bone, which appears like a broken place. The skull in this part was fractured, which occasioned the death of the individual. A little pipe-clay was moulded to the form of the other side, as near as possible, to allow a cast to be taken; but by allowing the mark to remain, you will be able to see the extent of the moulded part."

ARTICLE IX.

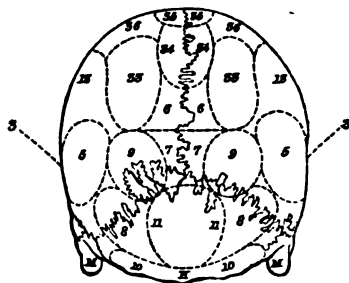
DR VIMONT ON CONCENTRATIVENESS, from his *Traité de Phrénologie*, tome ii. p. 210.

INSTEAD of attempting to convey an idea of the extent and value of Dr Vimont's contributions to Phrenology, by a view of his *Traité de Phrénologie*, in a single article of our Journal, we, in our last number, announced our intention of presenting, from

time to time, full abstracts or translations of his most important observations for the instruction of our readers, and, in pursuance of this plan, we proceed to notice the seventh section of his second volume, which is entitled "Organe orçant une faculté à continuer son action."

"After having compared," says Dr Vimont, "a very considerable number of skulls of persons distinguished by a well-marked character for Pride, I have been convinced that Drs Gall and Spurzheim have placed the organ of this faculty too far backwards, or, at least, that a great portion of the convolution which constitute it, that is to say, about the two posterior thirds, will belong to another organ. It appears, from my observations, that the space between Self-esteem and Philoprogenitiveness, presents a greater extent than is assigned to it by Dr Gall, and that there are two distinct organs in that situation, the one superior, No. 6, the other inferior, No. 7.* p. 89. fig. 2.

"The first occupies the posterior and superior angle of the parietal bones, and the second the superior angle of the occipital bone. When this last is much developed, it raises up a little the most distant portion of the posterior and superior angle of the parietal bones. The anatomical remark which I have now made, and of which nobody has spoken before me, may throw some light on a kind of polemical discussion which arose between Dr Spurzheim and Mr George Combe, and in which the latter shewed much talent. The discussion related to a new faculty, which, according to Mr Combe, had for its function the concentration of the mind on such or such objects. He believed, however, that its influence was more extensive, and that the faculty for the choice of places, or of habitation of Dr Spurzheim, belonged to the same faculty. After having read the observations of Mr Combe, and the objections of Dr Spurzheim, it appeared to me clear that the reasonings of Dr Spurzheim did not at all invalidate the observations of Mr Combe. But I do not agree with the latter in thinking, that the faculty of Inhabitiveness, and that of Concen-



* The numbers on the cut indicate the following organs, according to Dr Vimont's arrangement : 3 Destructiveness ; 5 Combativeness ; 6 Inhabitiveness ; 7 Concentrativeness ; 8 Attachment for Life. (This is a new organ proposed by Dr Vimont, which we shall describe in a future number) ; 9 Adhesiveness ; 10 Amativeness ; 11 Philoprogenitiveness ; 13 Cautiousness ; 33 Love of Approbation ; 34 Self-esteem ; 35 Firmness ; 36 Conscientiousness.

trativeness, depend on the same organ. On the contrary, I am satisfied, that there is a distinct organ for each, the first corresponding to No. 6, and the second, lower down, No. 7. The latter appears to me to be the organ to which Mr Combe gives the name of Concentrativeness. He states, that he had found this organ largely developed in all persons who were capable of arresting, for a long time, their minds on one subject. I copy his own words: "Some persons," says he, "possess a natural consciousness of every thing that goes on in their own minds, in which power others seem to be remarkably deficient. The former can detain their feelings and ideas, and deliberately examine their character and consistency; the latter cannot do this; their minds are like the surface of a mirror, on which each feeling and thought appears like the shadow of a moving object, making a momentary impression, and passing away. They experience great difficulty in detaining their emotions and ideas, so as to examine and compare them; and, in consequence, are little capable of taking systematic views of any subject, and of concentrating their views to bear on one point. I have observed this organ to be large in the former, and small in the latter." *System of Phrenology*, 3d edit. p. 135.

I am the more disposed to admit the soundness of the ideas of Mr Combe on this faculty, but locating its organ differently; that my researches in comparative anatomy afford new evidence in its favour. Long before Mr Combe,* I had fixed my attention, as will immediately be seen, on this faculty; only I thought that it was to be met with in the lower animals alone, while I am now disposed to believe that it is to be found also in man."

"One day, when I conversed with a huntsman on the most remarkable faculties of the dogs employed in the chace, he asked me to what faculty I would ascribe the quality which distinguished the setter dog; and by this he meant, as well as I, the faculty which this animal possesses, of stopping short when he has discovered the game. My answer was, that this mode of action was the result of the education which he had received. However, after having remarked that many dogs placed themselves naturally in the attitude of setting, without having received any previous training, and that there were certain spe-

* Mr Combe's views of Concentrativeness appeared in the "Outlines of Phrenology," which form part "of the Transactions of the Phrenological Society," published in 1824, and we are not certain whether they were published before that date or not. In these Outlines, Mr Combe adopts the name of Concentrativeness, and, after mentioning Dr Spurzheim's function of Inhabitiveness, adds, "from more enlarged observations, it now seems probable that part of its functions is to maintain two or more powers in simultaneous and combined action, and to determine them towards one object." It is ascribed by him also to the lower animals, p. 66.

cies which could not be educated to this mode of action, I thought that the disposition to set must be referrible to an innate disposition, which education only developed. In studying the conduct of many animals, I found that this faculty was in some sort common to all the species, although some possessed it in a more remarkable degree than others. Thus, I had seen cats and foxes, in going in search of their prey, present all the characteristics of the setter dog. I saw one day in a garden under my window, a cat which watched a sparrow; its body was lengthened out; its head was held high and forward, and, except for the movements of its tail, I should have taken it for a cat stuffed with straw."

"The examination of the skulls of two setter dogs in my collection, also of the skulls of martens, cats, and foxes, in all of which creatures I believed that I recognised similar dispositions, was, at the moment, of no utility. It was by observing the habits of some birds, and the examination of their skulls, that I arrived at the discovery of this faculty, and was enabled to fix definitely its organ.

"I have always been in the practice of opening the stomachs of all the birds which I receive. In doing so, I had particularly in view to discover the substances which composed their food. One day I found in the pharynx and stomach of a crested grebe, (*Grébe cornu*, *Colymbus cristatus*). * Several little birds known in Normandy under the name of *de dards*.

"How does it happen," said I, "that this bird can seize a fish in such a medium as water, the slightest movement of which must be sufficient to enable it to escape? To accomplish such an object, an inconceivable extent of address and circumspection, must be necessary. As this was the first skull of a grebe which I had seen, its singular shape attracted my attention; for, although it presented, in many respects, some analogy with those of other species which I then possessed (1819), it differed from them considerably in other particulars. The circumstance which particularly fixed my attention was, not only the remarkable development of the anterior part of the frontal bone, but also that of the regions situated above the lateral portions of the cerebellum. In 1821 I procured a young cormorant. On opening its stomach, I found in it as in the crested grebe, a multitude of fishes; but a peculiar configuration of its skull also struck me; it was the resemblance of its shape to that of the grebe. In it, as may be seen in Plate LV. fig. 1. the parts situated over the sides of the cerebellum are also very much enlarged, the lateral portions, in particular,

* The crested grebe is a very beautiful aquatic bird. The feathers of its abdomen have the brightness of silver, and are used to make tippets and muffs.

were so in a remarkable degree. As I then possessed more than seven hundred skulls of birds, I collected and compared all those which presented a character similar to that which I had observed in the grebe. I saw with satisfaction, that all those which belonged to birds that have the habit of settling on their prey for a long time, or with an extreme attention, were precisely those which presented this configuration to whatever class they belonged. The names and drawings of the heads of the birds in which I met with this organization, are the following. The crested grebe already mentioned; the great and the little cormorant, Pl. LV. fig 1 et 5; the blueheron; the bittern; and the aigrette; *id. pl. fig. 2, 3, & 4*; the guillemot, Pl. LIX. fig. 7; in the sea-swallows (*les hirondelles de mer*),* Pl. LIV. fig. 2 4, & 5; in the fisher martin, (*le martin pecheur, id. pl. fig. 1.*)

"I examined all these skulls, after placing them on a table, in such a manner as to be seen from behind, and was surprised at their resemblance in one point (see fig. 3. Pl. XCIII. No. 7), although they differed extremely in all the others. I was thus led to consider as primitive the particular faculty of being able to arrest, for a long time, their attention on one object, which certain animals possess, such as the setter dog, the fox, and the cat, among quadrupeds, and the grebe, the cormorants, and the fisher martin among birds. The convolution marked on the brain of the martin, Plate LXXV. fig. 7, and all the portion of the convolution placed after No. 12, on the brain of the cat, *id. pl. fig. 2*, is that which I consider as connected with the faculty in question. I have found this part very prominent in the exterior of the skull of the fox; it is much less so on that of the badger; it is very large in the skull of a hunting dog, which was presented to me by Dr Gaubert, and on the skulls of four excellent setter dogs, which make part of my collection.

"If there exists, as I am much disposed to believe, a similar organ in man, it ought, in my opinion, to occupy the part of the superior angle of the occipital bone, marked No. 7. Pl. LXXXIX. fig. 2, and the region immediately above (6) should be the organ of the choice of a dwelling place. †

"It must now be by means of observations, repeated a great many times, on persons whose habits are well known, that phrenologists must arrive at the certainty of there being, or not being, in the human species, a constant relation between the development of this part of the brain and the qualities attributed to it by Mr George Combe."

* These skulls do not appear in this plate, No. LIV, in Dr Vimont's atlas.

† "As to the lower animals, I consider it as almost demonstrated. I beseech my readers to peruse what Mr Combe has written on this faculty in man. His remarks appear to me worthy of the attention of Phrenologists. I should have presented them entire in this volume, if I had not found myself compelled to confine myself within certain limits," p. 216.

ARTICLE XI.

OBSERVATIONS ON THE FACULTY OF CONCENTRATIVENESS, as proposed by Mr GEORGE COMBE, as a substitute for the **FACULTY of INHABITIVENESS** of Dr SPURZHEIM. By T. BERNARD DE LA FOSSE, Member of the Phrenological Society of Paris. Read before the Phrenological Society of Paris, in March 1836.*

THE appellation of Concentrativeness, and still further the sphere of activity ascribed by Mr George Combe, to the faculty described by Dr Spurzheim, under the name of Inhabitiveness, appear to me to be little in accordance with the results of observation.

Dr Spurzheim was supported by indisputable facts in separating the sentiment of Self-esteem from that species of manifestation which, in man and the lower animals, results from the constant choice of the same places and of the same regions, by individuals of the same species. Daily experience shows, that the instinct of Inhabitiveness is a primary or innate faculty, very different from that of Self-esteem; in fact, these two faculties are, in many individuals, found developed in very different degrees. A few remarks on the faculty of Locality, as opposed to that of Inhabitiveness, may, perhaps, serve to prove the existence of the latter.

Observation shews, that when the organ of Inhabitiveness is strongly developed and very active in an individual, that of Locality is generally small; and that, on the contrary, when Locality is greatly developed, Inhabitiveness is small.† Some individuals certainly present these organs equally well developed and active, and in this case there will be on the part of both an equal tendency to action, a struggle, as it were, between the two, accompanied by alternate gratification, depending on the varying influence of the other organs, and on external circumstances.

It is a matter of no small difficulty to induce individuals possessed of a large organ of Inhabitiveness to move from a place; they are close housekeepers, they never leave their country, or even their house, and the most attractive amusements cannot determine them to leave their home, even for a few days, although the change be attended neither by expence nor fatigue, solely because they cannot exist if they break through the circle of their sedentary habits. If to this

* The preceding article, translated from the work of Dr Vimont, strongly supports Mr Combe's views of Concentrativeness. The following also very ably controverts them. It was transmitted by the author to Mr Combe in MS. and we have translated and now present it to our readers.—EDIT.

† We have not observed this fact; on the contrary, we frequently see large Inhabitiveness and large Locality combined in the same individual.—EDIT.

great development of Inhabitiveness, there be joined an equally large development of Order and Caution, this species of character reaches an extreme, and gives rise to those curious cases of eccentricity which every one must have observed.

To determine more positively the functions of Inhabitiveness, it would be desirable that numerous observations were made on patients affected with nostalgia, particularly on those whose malady arises solely from removal from their native soil, without any complication of other particular affections, as sometimes happens. Dr Spurzheim, indeed, considers nostalgia as a compound affection resulting from Inhabitiveness and Adhesiveness; but judging from the functions which he himself attributes to Inhabitiveness, it does not appear to me that the intervention of Adhesiveness is necessary to account for simple nostalgia.

In fact, Inhabitiveness has for its special action "the instinct of residence, and for its abuse the desire to remain in one place." But nostalgia, from *νοστος*, return, and *αλγος*, depression of spirit, signifies literally, depression of spirit caused by desire of return. Nostalgia, therefore, is simply an abuse, or a diseased state, of the organ of Inhabitiveness, or instinct of residence alone. Mr George Combe describes nostalgia as an affection simply of Adhesiveness, but his error here is so manifest that it is needless to combat it.*

I am the more inclined to believe, that the faculty of Inhabitiveness exists in man and in the lower animals, such as it has been described by Dr Spurzheim, as it has been remarked that the greater number of the conscripts attacked by nostalgia belonged to Auvergne, Dauphiny, La Vendée, Anjou, Britany, and other mountainous districts, in a word, to the less civilized parts of the country, where the inhabitants have a strong affection for the soil which gave them birth, for their usages, and customs, and ceremonies of every description. The deficiency of means of communication, and their few commercial relations, combine to make the intellectual as limited as the visual horizon. Many of their faculties remain inactive, or are exercised only in a very limited sphere. These faculties are, in general, antagonists of that of Inhabitiveness; they have therefore but few means to combat and balance the activity of this faculty, the power of which is further augmented by the kindred faculties of Veneration, Wonder, Hope, Firmness, Self-esteem, &c.

The districts mentioned above, Dauphiny, Auvergne, Ven-

* Mr Combe's observation is simply this. "Nostalgia is supposed to result from disease of the organ" (*viz.* Adhesiveness). The organs of Adhesiveness are very large in the Swiss skulls in possession of the Phrenological Society, and those of Inhabitiveness are moderate or small, yet the Swiss are remarkable for their liability to nostalgia.—EDITH.

dée, Anjou, and Britany, have always furnished a larger number of deserters than the other provinces, a fact which certainly cannot be attributed to a want of courage, as the inhabitants of those regions are brave and courageous, and have often given incontestible proofs of their possession of these qualities. The woody and mountainous nature of these countries undoubtedly offers more opportunities of concealment from the authorities. But this quality of country is only incidental; it may, indeed, have served to increase the number of refractory persons or deserters, but it cannot have been the predisposing cause of their desertion any more than their political opinions, which at the same period have differed from, and been opposed to, those of other parts of the country. I believe that the cause must be referred to attachment to the soil, to their native district; distinguished from what is usually comprehended under love of country, which is a very compound affection.*

It is a constant fact, that the inhabitants of mountainous countries, when contrasted with those of the plains,† display, in general, a greater attachment to the soil. They are also more haughty, have a greater portion of Self-Esteem, and their manners are more severe. It was this coincidence, doubtless, which led Gall into error in his first observations upon the faculty of Self-Esteem, which, as is well known, he at first denominated the Instinct of Pride.

Owing to the want of means of communication, the inhabitants of mountainous countries are more savage than those of the plains. Commerce and civilization rarely penetrate into the recesses of the country, and it is therefore not astonishing that the action of Inhabitiveness should be felt with more than ordinary force. Every one knows, for example, that the Scotch Highlanders consider themselves far superior to the inhabitants of the Lowlands. The Dalecarlians in Sweden, the Montenegrians, the Souliotes, the Circassians, and in general all mountaineers, have always been remarkable for their noble pride and their love of independence. History shews us, that with every people, love of independence and pride have always stood in the inverse ratio to the degree of their civilization.‡

Moreover, in individuals who delight in travelling, the organ of Locality is fully developed, while that of Inhabitiveness is small. In the majority of women the organ of Locality is less

* We regret that Mons. de la Fosse does not inform us regarding the cerebral development of the inhabitants of these mountainous districts.—*EDIT.*

† The Hindoos inhabit plains; nevertheless, the organs of Concentrativeness, Inhabitiveness, and Self-esteem, are very nearly as largely developed in proportion to the other organs in them, as in the Scotch Highlanders.—*EDITOR.*

‡ This proposition is too general. The subject is discussed in this Journal, vol. ii. p. 508, and vol. iii. p. 223.

developed than in men, but that of Inhabitiveness is larger, and their whole education, indeed, tends to increase this latter organ. Females, who have the organ of Locality fully developed, are not at liberty, in general, to gratify it completely, and such are often heard to regret that they are not men, in order that they might satisfy their longing for travel.

It is much to be desired, that a series of numerous and complete observations were made on the faculties of Inhabitiveness and Locality, in order to determine precisely the sphere of activity of the former, and to this end the lower animals, particularly dogs, might furnish valuable indications. There are some greyhounds which are very eager in the chace, which are not afraid to separate themselves from the huntsmen or the other dogs, and to penetrate into a country which is totally unknown to them. They may go astray for a moment, but they never lose themselves. There are others, on the contrary, which are so afraid of losing themselves, that they keep continually close upon the heels of the sportsmen, and begin to howl most plaintively as soon as they lose sight of them, or of the other dogs, or have lost their track. When by chance they again fall in with a huntsman, they give unequivocal testimony of their joy, and can on no account be persuaded to leave him for fear of again losing themselves. Some of these, too, are possessed of excellent qualities, which become apparent in a country with which they have become acquainted, and these qualities only prevent their masters from disposing of them.

Among the former, those, namely, which possess a great facility in finding their way, and recollecting places, are some which often change their master, and consequently, also, their habitation; but notwithstanding the possibility thus presented to them, of returning to their former master, they are never known to do so. Inhabitiveness with them, then, is little developed. Others, on the contrary, return to their former habitation, as soon as an opportunity offers; the deprivation of food and the bad treatment which there await them, cannot tire their perseverance, nor can they be influenced by good treatment and good food to return to their new master. Inhabitiveness in them will be found largely developed and very active. Among the class which have not the faculty of finding their way and of recollecting places, those two characters will also be found; but with this difference, that those which leave their new home will in general be unable to find the old. It is to be remarked, that among greyhounds Adhesiveness is never very great nor very much exercised, so that it is hardly possible to confound its effects with those of Inhabitiveness.

There will doubtless be found in these different cases, a de-

velopement of organ corresponding with the acts under consideration, and the results of these observations put an end to any doubt upon the existence of the faculty of *Inhabitiveness* of Spurzheim.*

I submit these reflections to the consideration of such individuals as are specially occupied with the study of comparative Phrenology.

Let us now consider *Concentrativeness*.

Mr Combe assigns to the faculty of *Inhabitiveness* of Dr Spurzheim, as its principal function, the power which we have of concentrating, in a greater or less degree, the acts of two or more faculties, moral or intellectual, upon a single object, or to direct them towards the same end. Hence he gives the name of *Concentrativeness* to this faculty.

In his essay on the Constitution of Man, Mr Combe thus designates the functions of *Inhabitiveness*.

"*CONCENTRATIVENESS*.—*Uses* : It gives the desire of permanence in place, and renders permanent emotions and ideas in the mind.—*Abuses* : Aversion to move abroad ; morbid dwelling on internal emotions and ideas, to the neglect of external impressions."

I cannot agree with Mr Combe in this opinion ; indeed, it seems to me that permanence, or, what comes to the same thing, concentration of ideas and emotions, is not a primary faculty ; if it were so, it would be proclaiming anew the existence of the will and attention of the schools as primary faculties. Concentration is only one of the modes of action of each of our faculties, resulting from its power and activity. Concentration exists simultaneously in several faculties, for it is seldom that one acts alone, except in some pathological cases of monomania and somnambulism.

On the other hand, Mr Combe, in his *Outlines of Phrenology*, in the chapter on *Concentrativeness*, thus expresses himself :

"When Dr Gall first made observations on this organ, he was led to believe its function to be a desire of inhabiting high places, because he observed it large in animals that were fond of these situations ; such as the chamois, the eagle, and the ptarmigan. Further observations shewed it to be large in those animals and persons who seemed attached to particular places, and who disliked much change of residence. It was then termed the organ of *Inhabitiveness*. From more enlarged observations, it now seems probable that part of its function is to maintain two or more powers in simultaneous and combined action, and to

* The views of Dr Vimont, published in our preceding article (which admits an organ of *Inhabitiveness* as well as one of *Concentrativeness*), are in accordance with the remarks in the text.

determine them towards one object. This organ is found large in authors and orators who excel in concentration of thought; and also in actors and singers, who have the powers of exercising several faculties simultaneously, so as to produce, by their combination, one harmonious and united effect; and it is probable, that it is by the exercise of a similar power, that animals, such as the chamois, who are fond of heights, are enabled to maintain in action, all those faculties which are necessary to preserve their position, while they browse in difficult or dangerous situations, and at the same time avoid the aim of the hunter. There appears, therefore, to be nothing in the limited observations of Dr Gall inconsistent with the more extensive views now taken of the functions of this faculty. Dr Gall stated that the functions of the organ of Inhabitiveness is conjectural.*

Let us now take into consideration the assertion of the celebrated Scotch Phrenologist, but before doing so it is necessary to recollect. Firstly, That an organ may pass into activity either of its own accord, or from external excitement. This is a fundamental principle in Phrenology, and universally admitted. Secondly, That a faculty may be very active, but not powerful, or in other words that *much* may be done but badly or in an imperfect manner. Thirdly, That when in an individual one faculty is very powerful and active, its desire for gratification becomes exceedingly strong; it is pushed on to action, which becomes incessant, and sways the action of the other faculties; some of which act in a secondary manner for its particular satisfaction, while others remain completely at rest. This is the law of combination and of reciprocal influence,—a law deduced from facts.

In this case, according to Mr Combe, there would be concentration, and action of a faculty which he calls Concentrativeness; but what else is this concentration, but the extreme activity of the faculty, or its attention carried to the highest degree? There cannot be concentration unless where there exists a large development, or a state of excitement of one or of several organs, the manifestation of which, for the moment, are directed towards the same objects.† Concentration is therefore

* The extract in the text which is cited by Mons. de la Fosse, is taken from *Outlines of Phrenology* by Mr Combe, published in the *Transactions of the Phren. Society*, p. 67, in 1824.

† According to Mr Combe's views the faculties may be concentrated without violent action. The illustrations given by Mons. Vimont, of its action in setter dogs and in fishing birds do not imply violent excitement of a single predominant organ, but the quiet direction of the whole to one object. A tight-rope dancer manifests great concentrativeness, yet he is cool.—Ed.

at one time the very extreme of satisfaction or pleasure,—joy, ecstasy, &c. ; and at another time, the very extreme of dissatisfaction,—pain, grief, trouble, &c. In either of these cases, the individual is absorbed. He appears isolated amidst the greatest tumult, and impassive amidst the most imminent dangers ; he neither sees nor hears.

In some cases, the action of a faculty is so intense as to give not only the power of mastery over intense pain, but to render the body altogether insensible to it. We have many proofs in support of this assertion ; and I may quote the story of the young Spartan, who allowed his bowels to be torn by an animal which he had stolen and kept concealed beneath his cloak, without his face in the least betraying his sufferings : and further, that of Mutius Scævola, who voluntarily plunged his hand into the fire till it was partially consumed, in order to give the enemies of his country an idea of the courage and force of character of the Romans. The infamous punishment of the torture could likewise furnish us with numerous proofs. I will even cite the case of Dante, which has been brought forward in this Society in support of Concentrativeness. On finding a book which he had been long in search of, he was so overjoyed and lost in contemplation by his discovery, that a splendid review passed in the place in which he was without his noticing it.

Supposing, for example, the organ of Wonder to be largely developed in an individual, and its action sustained by that of the kindred faculties of Veneration, Ideality, Conscientiousness, Caution, &c. ; and strengthened, moreover, by the feeble development of its natural antagonists, the reflective faculties, we shall have an individual displaying, successively, all the stages of the wonderful, having visions, ecstasies, hallucinations, inspirations, &c., which are simply modes of action, at different degrees, of the sense of the wonderful, the exclusive activity of which will infallibly lead the individual to a periodic or continued monomania, till dementia supervenes, as a consequence either of exhaustion or of some lesion of the vital powers. Here again, according to Mr Combe, we should have the action of the pretended faculty of Concentrativeness. But it is evident that this permanence or persistency of action of the faculties in question, is owing entirely to its over activity, the source of which is internal, when it proceeds from too large a development of the organ ; or external, when an organ moderately developed is excited to such a degree by external circumstances and influences, that its fibres, if I may so express myself, have been carried to such a degree of tension, that they have lost the power of relaxation, and cannot return to the state of repose. The action then is incessant, or continued. To render my meaning more clear, I shall quote a recent occurrence in support of this opinion.

Some young men of Miranda having formed a shooting party, it was concluded by a breakfast, during which one of their number stole away unobserved. The others, on perceiving his absence, took their guns and set out in search of him. On arriving at the border of a wood, one of them, who was rather before his companions, thought he heard some groans; he sprung into the thicket, and immediately perceived a child up a tree, and a young female struggling with a famished wolf, which had already devoured the half of her face, one shoulder, and part of her throat. The young man fired instantly at the wolf and wounded it; this but served to increase its fury, it turned upon him and seized him by the arm, a furious struggle ensued between the two, but the instinct of self-preservation added a hundred fold to the strength of the intrepid youth, who, by a blow from his other arm, laid the wolf dead at his feet. All this passed so quickly, that his companions, although close upon him, had not time to render him assistance. The young woman was carried home immediately to her father's house; but there another tragic scene followed; for the young man who had disappeared from the breakfast, was the betrothed of this poor creature, and such was his despair at seeing her in this wretched condition, that he immediately shot himself.

Quite overpowered by these fearful events, the company separated; not foreseeing that the morrow was to witness others still more awful. The vanquisher of the wolf was conducted back to Miranda in silence by some of his friends. He was calm, as if downcast, but this excited no surprise. He went immediately to bed; two of his friends, accompanied by a doctor, came to see him next morning and found him still in bed. On being asked by the doctor how he felt, he sat up in bed; but his eye was fixed and haggard. One of his friends, advancing towards him, repeated in a benevolent manner the question of the doctor. At that instant he jumped out of bed, repeating to himself, "Ah! how do I feel myself?" and, with a blow of his fist upon the back of the neck, laid his friend dead at his feet; he then seized the poker, broke open the door, which the other two, who had taken flight, had shut behind them, and pursued them in his shirt along the streets of Miranda, the terrified inhabitants saving themselves by flight in every direction; and it was not without difficulty that he was at last secured. Thus were four families at once plunged into mourning by this fearful drama. Let us see what conclusion the phrenologists will draw from it.

It shews us a poor unfortunate creature affected with homicidal or destructive monomania in consequence of an incidental cause. In the second act we see at first benevolence, and then the instinct of self-preservation excite in the unhappy

young man the faculties of Combativeness and Destructiveness. The immensity of the danger has for a moment concentrated almost the totality of the vital powers upon these two organs. They have been so over-excited that their fibres, allowing such an expression, have been so powerfully stretched as to have lost the power of relaxation in the state of repose; as a spring, after having been bent beyond its habitual state, retains the position which has been given to it. The organs had undergone a struggle exceeding their habitual efforts; they had entered into an abnormal, a diseased condition, and powerful irritation had been developed. There was, consequently, persistence of action; but according to Mr Combe, there was merely a diseased state of the pretended organ of Concentrativeness, the abuse of which produced a diseased state, or a persistency in the same ideas, emotions, or acts. In this, as in the other examples, there is a fixity in the ideas or acts of certain faculties. The cerebral activity is concentrated in one or more organs, which act with great force, and almost incessantly. I see no necessity for the intervention of the faculty of Concentrativeness, alike repudiated by facts and all fundamental phrenological principles.*

ARTICLE XI.

NURSERY GOVERNMENT; or HINTS ADDRESSED TO MOTHERS AND NURSERY-MAIDS ON THE MANAGEMENT OF YOUNG CHILDREN. By Mrs BARWELL. London: Chapman, and Hall, 1836.

It has often struck us as one of the most palpable evidences of the hitherto defective education of all classes of society, that,

* This argument is exceedingly ingenious, but it might be applied with equal success to refute the functions of the organ of Firmness, which is indisputably established. Mr Combe's doctrine is, that in individuals in whom the organ of Concentration is large, there is a distinct tendency, independently of external or internal excitement of particular organs, to the height of passion, to continuousness in the action of all their faculties, which distinguishes them from those in whom the organ is small, and who cannot concentrate their faculties permanently in one train, whether of exertions or ideas, unless one overwhelming passion absorb them and concentrate them on itself. The primitive function of Concentrativeness is obviously not ascertained, and hence the difficulties which attend it; but so many individuals have recognised the general quality which Mr Combe has described, and Dr Vimont has added so much force to the evidence previously existing, that we can scarcely doubt of the reality of the faculty. We may remark that, in the cases supposed by Monsieur de la Fosse, he *assumes* that the organ of Concentrativeness was not necessary. Mr Combe would be equally entitled to answer, that in all of these instances that organ was not only necessary, but must actually have been possessed in a high degree, because great concentration was manifested, and no satisfactory reply could be given to his assertion. Monsieur de la Fosse does not report in what state the organ appeared in the Spartan boy, in Mutius Scævola, and in the youth of Miranda; and without acts no progress can be made towards determining the question.—G. C.

while the great majority of women calculate upon finding their chief happiness in matrimonial life, and look upon the nursery and domestic circle as their peculiar sphere of usefulness and enjoyment, it has never been even proposed to impart to them the slightest tincture of that preliminary knowledge of the human, and especially of the infant, constitution, without which they are necessarily and plainly unqualified for the duties which God has assigned to them, in intrusting the young to their charge and guidance. Even at this time of day, far on in the nineteenth century, amidst all our boasted enlightenment, the young and "well educated" female, who is already thinking of a husband, and hopes in a very few years to be the mother of a promising family, is not taught, in ordinary schools, a single fact or principle having any direct reference to the intelligent fulfilment of the duties which are by and by to occupy the most of her time, and become the subjects of her anxious thoughts and feelings. In music, in dancing, in languages, and in drawing, she receives the best and most expensive instruction which the means of her parents will permit; but when she becomes a mother for the first time, and her heart is overflowing with tenderness towards the infant being to whom she has given birth, and she considers in what manner its delicate and fragile frame ought to be treated, she experiences the deep and bitter mortification consequent on utter ignorance of its nature and wants, and, in utter helplessness, is obliged to look to a servant, or a nurse scarcely better-informed than herself, for that guidance which ought to have proceeded from her own mind, and on the fitness or unfitness of which, the life and happiness of her child may directly depend!

If the care of the young be the peculiar, and, when rightly performed, the most delightful and important occupation in which an affectionate and sensible woman can possibly be employed, and that to which almost every young female looks forward with longing, why should not her education purposely embrace such a knowledge of the nature and laws of the constitution, and of the elements of science, as shall best fit her for the duties which she is afterwards to be engaged, and on the right discharge of which her happiness is mainly to depend? There is no one reason to be urged against, but very many in favour of this rational proposition. We have long contended that "the ignorance of the natural laws," to use Mrs Barwell's words, "is the source of most of the ills under which all parts of the community suffer; and that in education, ignorance of the physical and mental qualities of the being upon whom we have to act, is the chief cause of the eventual failure;" and we therefore heartily approve of Mrs Barwell's lending her aid to remedy the evil, by the present attempt to "enlighten the un-

derstandings of those who are intrusted with the care and superintendence of the nursery," either as servants or as mothers.

Mrs Barwell's little book is plainly and pleasingly written, and the information which it contains can scarcely fail to be useful to those for whom it is designed. The remarks on the moral treatment of children are not less judicious than those relating to their physical management, and we therefore wish her "Hints" every success in bringing about a better state of things. When so much is doing to improve the condition of mankind, surely the palpable deficiencies already alluded to as destroying the usefulness of female education will not be much longer overlooked.

We think it right to add, that we differ from Mrs Barwell in recommending sleep immediately after eating, as a promoter of digestion (p. 18.). She says that "Nature intends this, because digestion goes on better during sleep, and Nature's laws must be obeyed." Experience seems to us to indicate the reverse. We know that if a grown person goes to sleep immediately after a meal, his rest is either very disturbed and dreamy, or of an apoplectic kind; and when he awakes his stomach is still oppressed, and his appetite null. Indeed, Mrs Boswell herself mentions, that when an infant is over fed, "it is consequently restless," and cannot sleep. The brain, in fact, becomes oppressed with blood, and all the functions, digestion among the number, are *impeded*.

If, on the other hand, we eat only a moderate meal, such as the system requires, no drowsiness follows. We feel for a time averse to *active* exertion, and Nature obviously intended that we should then avoid it; but unless previously fatigued, we experience no unusual tendency to sleep, but rather a cheerful contentment and desire to enjoy the present. This half-quiescent state is the most favourable for digestion, and if we indulge in sleep in such circumstances, we run the risk of awaking with headach, and a stomach distended by flatulence. It is when digestion is nearly completed that sleep is most beneficial, and most tranquil; and hence it is a kind of axiom in medicine, that supper, when taken at all, should be a very light meal, and be finished at least two or three hours before going to bed; and that digestion may be nearly completed before the approach of sleep. It is the deposition of the nourishing particles by the blood to which sleep seems to be peculiarly favourable, and hence the tendency to fatness in those who indulge in it to excess.

ARTICLE XII.

ESSAY ON THE TEMPERAMENTS, CONSIDERED IN RELATION TO CEREBRAL ORGANIZATION. Read at a Meeting of the Southampton Phrenology Class. By Mr S. C.

THE term temperament is applied to those differences of external appearance which are supposed to indicate the comparative states of the fibres of the body, as they are more or less dense, or as possessing one of the functions of life in greater activity, or one of the constituents of the animal body in greater quantity, than another. In a popular way we call a man with a loose soft fleshy-looking face, and corpulent frame, a *lazy-looking man*; and one of compact muscles and spare frame, an *active-looking man*. Both these states may be variously modified by a number of accompanying circumstances which we know, it seems, almost instinctively, how to appreciate, and of which it is not needful for me to enter into detail at present. But in thus judging of the activity, or indolence of a man from his external form, we judge from the temperament; and, when we are deceived, it would probably be found in all instances that those who appeared indolent, but were really active, had an organization, extraordinarily powerful, so as to counterbalance the feeble temperament; and that those who were indolent, with an active temperament, possessed a feeble or restraining organization. On this view of the case I shall have occasion to speak at some length by and bye.

The subject of temperament was studied by physiologists long before Phrenology came into existence as a system. Systematic medical writers have uniformly insisted on the importance of observing idiosyncracies, or peculiar constitutions of individuals, and have instituted arbitrary divisions to which, either simple or combined, all mankind might be referred; and, according to which, medical treatment might in some degree be regulated. Amongst the ancients, and during the middle ages, the fact was noticed, and was disposed of in that summary manner which resulted from the preference shewn by those who then affected to interpret nature, to permit their imagination, with the most perverse ingenuity, to devise causes, rather than to employ their reason in discovering them. By some of the classical writers on medicine, living bodies were supposed to be constituted by the harmonious union of all the four elements, earth, air, fire, and water; or, as they are more frequently called by them in the abstract, hot, cold, moist, and dry; they considered that as any one of these existed in greater proportion than the rest, in a particular body, the constitution and character of the individual

were determined. This is the doctrine which forms the subject of Galen's book, "de Temperamentis." But a more strictly medical classification was made by Hippocrates, which was generally received during the middle ages. It is thus described in an old volume which professes to teach us the secret of astrology, agriculture, alchemy, commerce, and medicine.—"As I have found in the astronomical science there be four different sorts of humours in the body of man, of which the four complexions" (*i. e.* temperaments) "are formed; and of these, one is composed of yellow choler, another of black choler, a third of phlegm, and a fourth of blood, and if one of these be wanting the body must perish, because they equally sustain it; and all these ought to be kept in an equality, for if one be predominant over the rest, it puts the body out of order." Another division which has more claim to scientific notice was made by a French physiologist, and distinguishes three cardinal temperaments—the cephalic, the thoracic, and the abdominal. The first was named from *κεφαλη* the Greek for a head, and was indicated by greater size, or superior activity of the organs of the head; the second, named from the thorax, or cavity containing the heart and lungs, was shewn by a full open chest, and vigour in the functions of respiration and circulation; and the third, called from the abdomen, was exhibited in the "fair round belly with good capon lined," and general flaccidity of the muscles. The first of them was supposed to evince intellectual power, the second physical strength, and the third indolence. It must be admitted that this division has the recommendation of great simplicity, of depending on very obvious indications, and indeed of every requisite except the most important, that of convenient practical application.

Other physiologists, such as Dr Gregory and Richerand, have considered that five principal temperaments may be distinguished; which they have termed the bilious, the lymphatic, the melancholic, the sanguinous, and the nervous; to each of these they have vaguely and discordantly ascribed moral and intellectual peculiarities, but their primary object has of course been to apply them usefully to medical science. How far they have succeeded in this, and whether sufficient diligence has been used to collect and compare individual facts, and to develop their dependence on principles, it is not for me to determine. The design of the present paper is merely to consider the temperaments, in their relation to cerebral organization, as they influence the moral and intellectual character of man.

From general neglect of the subject of temperaments by recent phrenological writers, I believe I cannot better commence a phrenological sketch of them than by a quotation from the valuable work on characters, by one of the earliest and most

intelligent phrenologists, from which his deliberate view of their importance will be seen, although, I believe, it will be found that even he has not treated them so thoroughly, so clearly, nor in such immediate relation to cerebral development, as the nature of the case requires.—“The first point,” says he, “to be considered by the phrenologist is the bodily constitution of the individual subject of observation, whether this is lymphatic, sanguine, bilious, nervous, or is made up by a mixture of these primitive temperaments. This preliminary step is necessary in order to enable him to conclude concerning the degree of activity possessed by the cerebral organs.” To this remark of Dr Spurzheim’s I would venture to add, that not merely do the temperaments exert a great influence on the activity of the organs, but they affect certain points of character of no small importance, as it respects the happiness and welfare of mankind, and which may exist most dissimilar with exactly corresponding development of brain. As an instance of this, I knew a gentleman whose cerebrum indicated every quality which should lead to uniformity of character, and those traits were actually ascribed to him by a phrenologist of respectable attainments; but, of all the men I ever knew, his character, taken as a whole, was the most vacillating and uncertain, and yet you might distinguish the power of his mind working under the disadvantage of a temperament that prompts to idleness.* I have met with several other instances not less striking, with which I shall not now detain you; for, as I cannot mention names, they could not have the force of proofs, and would only serve as illustrations when no illustration is needed.

The manner in which temperaments have been supposed by phrenologists to indicate different degrees of mental activity, is this. It would seem probable, on the first view of the case, that the brain would participate in any peculiarity of structure existing in all the other portions of the body; although the variations of density, or other qualities of the substance of the brain, be so minute as to elude the most refined researches, it is quite supposable that they may be sufficient to affect the activity of the cerebral organs. It may be recollected that the excellent Dr Watt indulged in a similar speculation to account for the alteration in the power of memory as the age of an individual increased; but as it is, and seems likely to remain a question merely of probability, alike unsupported or uncontra-

* This must have been simply a case in which there was little or no spontaneous activity of brain; and where, consequently, the faculties would come into play only when excited by their external objects, and have present manifestations differing according to the kind of exciting cause which was applied to them.—EDITOR.

dicted by facts, it does not seem to be worthy of much attention.

There is, however, something approaching an appeal to analogy, which, if the statement on which it rests is true, brings under our notice an interesting fact. It is asserted that educated nations have skulls with a finer grain, and more approaching to the compact nature of ivory, than those which are uneducated, even when both belong to the same great variety of man.

The Caucasian race are said to possess skulls differing in density, from a remarkably open spongy texture, like that of some of the inhabitants of the Alps, to a close grained ivory-like nature, such as is found in the cranium of an ancient Greek.

Dr Spurzheim recognises four primary or cardinal temperaments, to which he considers all individual cases may be advantageously referred, either as pure, or much more frequently as consisting of two or more combined. I shall first give Dr Spurzheim's brief description of them, and shall afterwards enlarge upon each in detail.

1. "The lymphatic, or phlegmatic temperament, is indicated by a pale white skin, fair hair, roundness of form, and repletion of the cellular tissue; the flesh is soft, the vital actions are languid, the pulse is feeble, and the whole frame indicates slowness and weakness in the vegetative, affective, and intellectual functions."

2. "The sanguine temperament is proclaimed by a tolerable consistency of flesh, moderate plumpness of parts, light or chestnut hair, blue eyes, great activity of the arterial system, a strong full and frequent pulse, and an animated countenance; persons thus constituted are easily affected by external impressions, and possess greater energy than those of the former temperament.

3. "The bilious temperament is characterized by black or dark hair, yellowish or brown skin, black eyes, moderately full but firm muscles, and harshly expressed forms. Those endowed with this constitution have a strongly marked and decided expression of countenance; they manifest great general activity and functional energy."

4. "The external signs of the nervous temperament are fine thin hair, often inclining to curl, delicate health, general emaciation, and smallness of the muscles, rapidity in the muscular actions, vivacity in the sensations. The nervous system of individuals so constituted preponderates extremely, and they exhibit great nervous sensibility."

Such are the four cardinal temperaments recognised by Dr Spurzheim and his followers. It should be particularly observed, that examples of any one of them unmixed are extremely rare, although in most individuals, one, which it will seldom be

difficult to discriminate, decidedly predominates, modified by the presence, in a greater or less degree, of one or more of the others. In describing cases of this kind, the principal temperament is placed after the one by which it is supposed to be modified, so as to form a compound word; thus, a person with lymphatic complexion and softness of muscle, but with black hair and dark eyes, would be termed bilious-lymphatic; a person with a dark complexion, combined with the same particulars, would be called lymphatic-bilious; a man with somewhat slender frame, pale complexion, determination of muscle, general activity, fine but thick brown hair, inclined to curl, and dark eyes, would be bilious-nervous. The general outline of this combination may be observed in the portrait of Buchanan.

For still further accuracy it will be sometimes desirable to notice a slighter modification than is indicated by the first member of the compound word; as, when to the traits last mentioned, a looseness of muscle is observed in a part only of the body; as in the face or arms, it might be described as the bilious-nervous, with a trace of the lymphatic. Dr Spurzheim considers that determinate faculties are wrongly ascribed to particular temperaments, and that the temperaments are to be considered only "as indicating four different degrees of activity, in the vegetative and phrenic functions." According to this they only differ in degree; and from some of the preceding remarks it may have been perceived that I have ventured to ascribe to them differences of kind. It would be easy, if it would answer any good purpose, to collect passages from Dr Spurzheim's works, from which it may be inferred that he also ascribed peculiar kinds, as well as degrees of activity, to each one of the temperaments, in the consideration of individual cases; and the misstatement which I have cited, without doubt, arose from his not having a steadfast regard to the importance of the subject.

The view which appears to me to be at once the simplest and the most reasonable, and which I introduce with the greater confidence, because I believe it to be incidentally, though not directly, recognised by both Spurzheim and Combe, is, that each of the cardinal temperaments has a set of organs which may be called its *corresponding organs*, to the operation of which it adds *intensity* in a peculiar degree; and another set of organs which it never fails to restrain. I have endeavoured to make a table exhibiting the corresponding and opposing organs of each temperament, which I now, with great deference, submit to the judgment of more experienced phrenologists than myself. I am free to confess that the details depend on a very insufficient observation of facts, and probably on a very imperfect knowledge of the science. But I rely with greater confi-

dence on the correctness of the principle involved, and I therefore presume to recommend the observation of the temperaments in direct connection with certain organizations.

I proceed to a fuller consideration of each temperament, in the course of which I shall endeavour to make the preceding views more clear and certain. Dr Spurzheim very properly gives this sleepy-looking head (pointing to a drawing) as a representative of the lymphatic temperament—a man without a name. As it is important that the characteristics of each temperament should be known, I shall not hesitate to repeat in substance the description which I have quoted from Dr Spurzheim, with such additions as, from authority or observation, I may deem useful. The pure lymphatic temperament is characterized by a pallid complexion, soft skin, mostly free from hairs, the hair flaxen, the pulse weak and low; a general tendency to corpulence, and a deficiency of expression in the face. If my own experience may be relied on, the eyes are in all instances lightish grey. Instances of pure lymphatic temperament are more rare than of either of the others, and perhaps are never to be found, except amongst females and habitual invalids, when past middle age, who, from the want of exercise, have lost all trace of some other temperament which they may have possessed in youth. I shall take the liberty of again reminding you that the descriptions which I am now stating are mere abstractions, and possibly an individual combining all the particulars may not exist in nature.

It has been generally supposed that the external appearances to which we give the name of lymphatic temperament, are occasioned by a redundancy of the lymphatic system. But this can be viewed as nothing more than a loose conjecture on a subject which it is hardly within the reach of human powers to investigate. However probable it may seem from exterior aspects, that the lymphatic temperament is dependent on the lymphatic system—the sanguine on the blood—the bilious on the biliary secretion, or the nervous on a greater development of the nerves,* I have high authority for believing that anatomical facts by no means support the theory in all cases. Dr Gregory observes in his *Conspectus*, “Those physicians have at all times grossly erred who have attempted to assign a reason for the disparities of temperament, and have referred each to a superabundance of one of the juices or other constituents of the body.” That they arise from anatomical differences there can, I conceive, be no doubt; but we have no evidence for believing that we are able to see what those differences are. The merits of any classifica-

* We consider these opinions as antiquated, at least among educated men, and, therefore, as scarcely requiring serious refutation.—EDITOR.

tion of the temperaments, whether in relation to medicine or phrenology, must therefore rest solely on the observation of external facts.

The mental characteristics of the lymphatic temperament are soon told; an insurmountable tendency to indolence, an aversion to exertion of either body or mind, form the hopeful traits. It is, therefore, obvious that the restraining faculties, Cautiousness and (in some of its manifestations) Secretiveness, are the only organs with the operation of which it will correspond; while all the other propensities, and the intellectual faculties, will be enervated and restrained by it.

You will not unfrequently find most of the indications of the lymphatic temperament accompanied with black hair, and sometimes dark eyes; this generally arises from a mixture of the bilious, which will occasion an important modification, although indolence will still be the prevailing character. Individuals so constituted, and possessing powerful organizations, will at times shew great energy in taking up a subject, or an affair, and when opposed will occasionally evince great obstinacy; but they will be deficient in that enduring persistency of character which more favourably marks the bilious temperament, and will be easily diverted from their object by the love of ease, or sensuality. They will be disposed to indulge in bed in the morning; they will not easily impose a restraint on their appetites; they will neglect, or perform in a slovenly manner, the monotonous every-day duties of life; and they will always be pleased to put off exertion of any kind till they are pinched by necessity, or shame, or some other motive, which will be determined by their organization; but, when thus constrained to act, they will exhibit an energy of character very different from their general conduct, and which will frequently surprise those who have seen them only under ordinary circumstances. This combination would be termed the bilious-lymphatic.

Yet, in some of the more effective and desirable combinations, a slight tinge of the lymphatic is frequently advantageous—it checks the irascibility of the bilious, and the irritability of the nervous—it enables a man to enjoy ease, and when rightly directed, it renders him kind and amiable. A celebrated physiologist has whimsically remarked, that not one of the illustrious men, whose lives have been written by Plutarch, could have possessed a lymphatic constitution.—“They who possess this temperament,” he adds, “have never disturbed the face of the earth by their negotiations or their conquests.” In order to enlist a classical model in his service he adduces Cicero’s good humoured gentlemanly epicurean friend Titus Pomponius Atticus, whom every body loved, and who loved every body.

The sanguine temperament is distinguished by flaxen or light

brown hair, and blue eyes; delicately fair complexion, and an animated agreeable countenance, with the flesh moderately firm, and presenting that round full outline which is one of the most important elements of female beauty. The health is seldom interrupted except by slight diseases, and those influenced by the constitution arising from plethora in some form or other. It is amongst young ladies that this temperament is to be looked for to the most advantage. In men, when pure, and unmodified in a manner of which I shall presently speak, it produces a somewhat feminine beauty, such as is seen in the statue of Antinous, and in less degree in the Belvidere Apollo.

It has been generally supposed that the sanguine constitution is produced by the perfection or redundancy of the circulatory system; and, it seems such a natural supposition, that it is difficult for us to allow its proper force to the fact, that individuals of other temperaments are frequently found who can bear loss of blood by phlebotomy or otherwise, as well as those of sanguine constitutions, and in many instances much better. There is, however, one anatomical peculiarity which appears always to attend the sanguine. The skin is much less disposed to transpiration than the bilious or nervous; and, in consequence, Dr Pritchard, in a work just published, considers that individuals possessing it are much better calculated to bear cold than others. The Fins who, as a nation, are decidedly sanguine, bear extraordinarily cold winters much better than their more bilious neighbours the Laplanders. Dr Pritchard adds, that as the sanguine temperament is very rare in those warmer countries, near the spot where man was first placed by his Creator, he considers the sanguine temperament as the result of a natural adaptation to external circumstances, analogous to the white hares and other animals of northern regions; but, if this is the case, it is difficult to imagine how it is that Laplanders should continue tawny, while the Fins, situated farther south, are fair.

The most striking moral feature of the sanguine temperament appears to me to be a tendency to enjoyment of the present time, with little inclination to regret the past or to dread the future; and, in general, to look at either past or future, no more than is accessory to happiness. The griefs of a sanguine individual will, perhaps, be more readily exhibited than of those of other temperaments, but I believe they will seldom be so poignant, and certainly will not endure so long. His conduct will be readily accommodated to external circumstances, and regulated mostly by impressions received from them. Those who like classical models may see this trait in the character of Alcibiades; it may also be seen portrayed in the Proteus of our Shakespeare. The organs to which intensity is given by the presence of the sanguine constitution are seen in the table. (See at the foot.)

In regard to Amativeness I have the support of physiologists and phrenologists; to my own observation, Hope, Marvellousness, and Gaiety, in their general lively and delightful manifestations, may be considered as equally well established. In regard to Combativeness, Self-Esteem, Love of Approbation, Imitation, Eventuality, and Language, their effects may be rather to impress a peculiar character, than merely to give intensity. A sanguine man who has these organs predominant, will be a ready speaker, a quick learner, a pleasant companion, and will probably excel in conversation; but the bilious man, with this same organization, will be inclined to lay down and execute plans of distant ambition, while the sanguine man will look for present reputation. The bilious man, if he do not despise the present, will keep his eyes fixed on the future; the other will be satisfied to shine in a debating society, but will not undergo the labour of obtaining substantial intellectual excellence; while the latter, in the same circumstances, will look forward to the senate, and consider the debating society as only subsidiary to his education.

It will be readily seen that these traits are unfavourable to the study of abstract truth; and, therefore, if the theory be correct, it follows that the contemplative faculties are injured and repressed by a sanguine constitution. The love of present ease will often occasion an over favourite scheme to be given up for some bauble of pleasure, and hence Firmness will be enervated. While the lymphatic man puts off action because he dislikes to move, the sanguine man puts it off because he can be happy without moving, it follows that Destructiveness operates less energetically, and that both lymphatic and sanguine men are great procrastinators; the first uniformly from indolence, and the latter capriciously, because something else takes his attention, for the moment.

I think that I have observed the most capricious characters in existence are to be found amongst sanguine persons, with small brains, and not unfrequently with a tinge of the nervous temperament. I am not prepared to enter into detail of the particular organizations connected with this topic, but I shall just remark, that characters of this class frequently manage to atone for hasty ungovernable tempers by a most delightfully free and easy vivacity between the storms; so it frequently occurs that a capricious sanguine man will be more readily chosen as a companion than a bilious or lymphatic man, with the most monotonous good temper, and equal or superior intelligence.

There is a variety of this temperament, which may be seen most frequently amongst young men from 17 to 30, which I shall venture to term the *red sanguine*. It is physically marked

by a red face, often plump, and sometimes red hair; with a considerable difference of organization, persons of this class will be found to have strong animal propensities, hasty tempers, little perseverance, except when opposed, and but small intellect.

When young men of sanguine constitution devote themselves to any active exercise requiring much exertion of the organs of motion, a great modification is occasioned; the muscles increase in volume and density, and acquire great strength, passing into what is termed the athletic-sanguine—the Farnese Hercules finely presents the characters of this constitution. It is generally accompanied with little intellectual vigour, and illustrates the truth of the remark, that mental energy and robust health are seldom combined.

The bilious temperament is exemplified in the portrait of Brutus. It is characterized by a strong decided cast of features, complexion inclining to brown, dark eyes, and black or dark brown hair; with the muscles firm and well marked, and the figure, in general, expressive of vigour, with every motion significant and decided. In combination, it is frequently traced in a slight yellowness of the skin, which can only be detected by comparison, or an extraordinary acute perception of colours; for example, you may frequently find two persons, particularly ladies, the one with dark hair and eyes, the other with flaxen hair and blue eyes, the complexions of both would be denominated fair; on observing them near each other, however, it will be seen that the fairness of the dark-haired one differs considerably from the clear snowy whiteness of the sanguine.

A thick-and-thin phrenologist would say that Richerand had described the mental manifestations of the bilious temperament in quite a phrenological manner. "If these conditions exist," says he, "the passions are violent, the motions of the mind often abrupt and impetuous—the character steady and inflexible—hardy in the conception of a project—constant and indefatigable in its execution; it is among men of this temperament that are found those who, at different periods, have governed the affairs of the world; abounding in courage, audacity, and activity, they have signalized themselves by great virtues or great crimes." Hoffman mentions another trait which is still more strictly phrenological, "That the king should choose his ministers and counsellors from men of bilious temperament."

The coincidence of these points of character with the organs which I have ventured to call the corresponding organs of the bilious temperament, will be easily seen.

Amativeness and attachment will be strong and durable in the bilious man. Those who die of love, or like Viola, who never told her love,

"But let concealment, like a worm in the bud,
Prey on her damask cheek,"

would only exist with a strong preponderance of the bilious ; hence it is, that however much some beautiful faces are adorned with the expressive blue eyes of the sanguine, we look for intensity of feeling in that dark full eye, which has been often compared (but how unworthily, all who have looked for themselves must know) to the eye of the gazelle : or, in earlier times, according to some commentators on Homer, to those of the ox ; a notion only saved from being laughed at, because it excites one's indignation by its coarse impertinence.

The next group of organs, consisting of Combativeness, Destructiveness, Self-Esteem, Firmness and Secretiveness, may exist in other temperaments, but I doubt whether they will ever constitute the man of decision in any but a bilious constitution. That proved, self-confiding, uncommunicative, persistency of character which marked Napoleon or Brutus, and which is so inimitably described by the author of the celebrated essay on "Decision of Character," is what I mean "when such a man," says the last mentioned writer, "can accomplish a design in his own person alone ; he may separate himself to the work with a cold, self-inclosed individuality on which no one has any hold, which seems to recognise no kindred being in the world ; which takes little account of good wishes and kind concern, any more than it cares for opposition ; which seeks neither aid nor sympathy, and which seems to say, I do not want any of you, and I am glad that I do not—leave me alone to succeed or die." When assistance is indispensable to his undertakings, his mode of signifying it will seem rather to command the co-operation of others than to invite it. I must take the liberty of repeating, that I hold it next to certain that this character will never be found in a man with a predominance of the sanguine, or the nervous, whatever may be his cerebral development.

The intellectual traits of such a man will be those of strong judgment, persevering industry, and a dignified unity of purpose in his several undertakings. He will effect anything, because he is ready to undergo any degree of labour. He will be content, like the immortal Milton, or our illustrious contemporary Wordsworth to expect, with the prophetic confidence of exalted genius, the praises of posterity, and, in regard to the present time, his prayer will be "Fit audience let me find, though few."

The intellectual character of Gibbon, which has been contrasted by Lord Byron with the brilliant and restless nervousness of Voltaire in two portraits of consummate skill, could only have existed with a bilious temperament, which appears to have predominated in our historian, modified only by a tinge of the lymphatic, which increased on him in his latter years ; after describing the versatile genius and habits of the "historian, bard,

philosopher combined," in two lines and a half of the most expressive language that was ever uttered:—

"The other deep and slow, exhausting thought
And hiving wisdom, with each studious year
In meditation dwelt."

It was thus that twenty years were expended in the production of the history, decline, and fall of the Roman empire.

A bilious man will seldom be talkative, and the manifestation of gaiety will therefore be impaired. He will in general possess a strong, cold, comprehensive habit of mind, which will not suffer him to be credulous, and hence marvellousness will not be active.

The peculiar effect produced on the organ of Hope by this temperament is in accordance with its general influence. If the sanguine man is disappointed, the first thing he does is to give up his hope good-humouredly, and hope for something else. But the bilious man will retain hope for the same object unimpaired, through a long series of years. If his judgment do not tell him that it is impossible, and if he do not attain his wishes, he will resign his hope only with his life.

The nervous temperament is generally shewn by fine dark hair, inclined to curl, and dark eyes, fine-grained smooth skin, generally with a marmorean smoothness of the forehead, with small compact muscles, in restless activity. The countenance will be animated, and every movement energetic. The intellect will be proportionally active. The head of Montesquieu is appropriately fixed on as a type by Dr Spurzheim, and, I trust I may not be taking too great a liberty in adducing the valued president of this institution, as an equally good example of pure nervous temperament, and, as being without exception, the best illustration I have ever seen. An extraordinary promptitude and energy which must always be in action, distinguishes the nervous constitution, and shews its consistency with the functions of Destructiveness, Self-Esteem, and Love of Approbation. A remarkable quickness to learn and readiness of comprehension, but little tendency to sensual gratification, and an extraordinary power of passing from one subject to another, are equally its characteristics.

The philosophical investigations of a nervous man, will have a character of their own. They will consist generally of acute and striking thoughts, expressed in a pointed and clever manner, rather than in long trains of ratiocination, which belong particularly to a predominance of the bilious. The writings of Montesquieu illustrate the philosophical style of the nervous man, whilst Bacon's "Novum Organon" exhibits a true mixture of the patient methodical proceedings of the bilious intel-

lect, with the acute and clear view of particulars which belong to the nervous.

The leading fault of the nervous temperament, is a tendency to irritation and impatience; when a design is conceived, something must instantly be done. What Dumont observes of Mirabeau, is curiously illustrative of this feeling. "If," says Dumont, "he had to write a Chinese grammar, although at present utterly ignorant of the language, he would have the commencement written before to-morrow evening." This tendency is, of course, incompatible with that long revolving habit of considering an undertaking, which, before a step is taken, resolves on everything in the best manner, and conceives a complete and orderly picture of the work in the recesses of the mind. Thus it was with Michael Angelo after he had undertaken his finest work—the Tomb of one of the Popes. He did not put a modelling stick to the clay, nor a chisel to the marble, for four years; all his friends blamed his supposed indolence; but they understood him better when, after he had commenced, they witnessed not one moment's intermission in the progress of the work, except such as was required by nature and the duties of religion. This circumstance, contrasted with the habit of Mirabeau, will exhibit the difference of intellectual operation which exists between a great predominance of the nervous, and a predominance of the bilious.

On the whole, the nervous is the most disposed of any of the pure temperaments to intellectual pursuits, and, as it is always marked by delicate health, and great excitability, it may be considered in those respects as the opposite extreme to the athletic nervous. This accords with the remark which I before noted, that great intellect is seldom found in a body of robust health.

The bilious-nervous is a temperament which has comprised a large number of great intellectual characters. With something of the self-originating and self-confiding powers of the bilious, together with the acute perception which belongs to the nervous, a character is formed which it will be easy to see is well adapted effectively to receive the impulses of an intellectual organization. It may be observed strongly marked in the portraits of Bacon, Milton, Shakspeare, and Dante. Dr Spurzheim has given the face of Buchanan, the historian of Scotland and the Latin poet, as a fair example of the face formed by this combination. The general outline of the bold features will be seen to bear considerable resemblance to those of the immortal four which I have named.

As the sanguine temperament contributes most to female beauty, the perfection of the manly figure belongs to a combi-

nation of the nervous with the sanguine, when it approaches the athletic, or of the bilious with the nervous. The Antinous and the young Apollo belong to the pure sanguine, and it must be admitted that their excellencies belong rather to the feminine than to the masculine character. The beau-ideal of man will be looked for in something between the Apollo and the Farnesian Hercules, in which moderate fulness is given by the sanguine or the bilious, and determination of muscle with proper tenuity of the wrists and ancles by the nervous.

In the celebrated picture of Fuseli of our first parents expelled from Paradise, the contrast between the two figures is shewn in the highest perfection, and the distinctions of temperament may be beautifully traced.

The expression of each temperament is transcendently given in the description of the divine Milton, beginning with the words—

“ Both
Not equal as their sex, not equal seemed;
For contemplation he and valour formed,
For softness she, and sweet attractive grace;
He for God only, she for God in him—
His fair large front and eye sublime declared
Absolute rule; and hyacinthine locks
Round from his parted forelock manly hung
Clustering, but not beneath his shoulders broad:
She as a veil down to the slender waist
Her unadorned golden tresses wore,
Dishevelled, but in wanton ringlets waved,
As the vine curls her tendrils which implied
Subjection, but required with gentle sway,
And by her yielded, by him best received:
Yielded with coy submission modest pride
And sweet reluctant amorous delay.”

With a few general remarks I shall conclude.

The antithesis of the lymphatic temperament is the nervous; that of the sanguine, the bilious. Their tendencies will be seen, I think, in all the organs affected by each to be thus diametrically opposed to the other. The lymphatic and the nervous hold the simple and intelligible extremes of the laziest and the most active; the one will be only happy when he is doing something; the other will dispose of the question *de finibus* by considering, that exertion is the *summum malum*, and inaction the *summum bonum*. Equally well marked, though not quite so simple, is the distinction between the sanguine and the bilious. The sanguine man will have his pursuits and character formed by the circumstances which surround him; from them he will derive his pleasures, which will seldom have much relation to futurity. The bilious man, on the contrary, may perform the duties which may be placed before him by external

circumstances, but he will perform them in his own way ; more often will he choose his own pursuits, and he will always have a character of his own, his pleasure will be little dependent on those about him ; they will originate in himself, and he will be generally prepared to say—

“No matter where, if I be still the same.”

The sanguine man will ask and follow the advice of friends ; the bilious will value advice only as it supplies him with materials on which to found his own judgment. The sanguine will be free and ready in his first introduction to strangers ; the bilious will be taciturn and often repulsive.

It may be objected that these differences of character are too marked to depend only on the temperaments, and will not exist unless there is a difference of organization co-operating. It may be so ; but my own experience has led me to conclude, that variations of not less importance than those I have mentioned, are most frequently marked, if not produced, by a certain difference of temperaments. For illustration, we will pursue the comparison between the sanguine and the bilious man. Let both, with their general development the same, have equally the organs of Imitation, Gaiety, Ideality, Eventuality and Language, Love of Approbation, and not too much Caution nor Secretiveness ; both will therefore have the organization fitted to make them shine in conversation, but there may be as great a difference between them as would exist in the conversation of Lord Chesterfield and of Samuel Coleridge. The polished gentleman, the man who knows exactly the “when and how” to commence a conversation, and to keep it going with little chit-chat when substance is wanting ; who pleases every one, and pleases directly he is introduced, would have a predominance in the sanguine ; with the same cerebral development, the bilious man would never be talkative, unless he had something worth saying ; he may assume a respectful, but he would always retain a dignified air. He would have some reason for commencing a conversation, and would then charm by his intelligent eloquence.

The sanguine man, powerfully operated on by Secretiveness, would be ready to extort from every one a promise not to tell, and would then tell them everything. The bilious man so constituted, would realise the description of Tiberius given by Tacitus, “when he had no secret, he would always seem as if he wished to conceal something from you.”

The bilious and the sanguine man would both be susceptible of strong feelings of love and friendship. With the very same organs, the sanguine man would be a lover or a friend at

first sight, and would change the object without much compunction when absence or danger rendered it more conducive to his present gratification to do so. The bilious man would be somewhat less disposed to form a friendship, or to fall in love, but he would afterwards feel permanently and unceasingly, and neither absence nor danger would lessen his attachment. While the sanguine man would weep and express the sincerest sympathy with his friend in distress, the bilious man would die for him.

Both organized as I have described above, might enjoy themselves in the same external circumstances, but they would derive their pleasure from different sources, and hold it in different manners. Milton's *L'Allegro*, may have the same organization as *Il Penseroso*; but *L'Allegro* must have a preponderance of the sanguine, and *Il Penseroso* of the bilious.

But I fear, gentlemen, that I have already detained you too long with a paper, on the preparation of which I have been able to bestow a very insufficient degree of attention, considering that the subject is comparatively new. In regard to the views which I feel most anxious should be understood, that is, that each temperament has a more definite influence than is ascribed to it by phrenologists in general, I am aware that I must rest almost entirely on the appeal to your own individual experience. The few facts which I have adduced serve only as illustrations, as examples, indeed, of the proofs on which I have founded my own conclusions, but not as evidence for your judgment. One great difficulty in this respect, is the almost impossibility of discriminating slight shades of difference in temperament except from the living subject, and hence I cannot make an appeal to skulls and casts. The importance of the investigation is not, however, lessened by its difficulty, and if, in this essay, I may have succeeded in shewing that the subject is important, and have added one single remark which may light the path to them, or made an arrangement which may assist the memory, I shall be fully satisfied.

To conclude, I will abate something of my pretensions in regard to the value of observing the temperaments when a sanguine man can be found who is a profound investigator of abstract truth, let his Causality and Comparison be what they may; when a lymphatic man is found who is prompt and persevering, though he have Destructiveness and Firmness in their fullest development; when a nervous man can pursue a question in metaphysics with dogged inductive perseverance; or when an example is adduced of a bilious man who is always ready to concede everything, and to converse with every one, let him possess any development that a phrenologist may prescribe.

<i>Temperaments.</i>	<i>Corresponding Organs.</i>	<i>Opposing Organs.</i>
Lymphatic.	Secretiveness. Cautiousness.	Nearly all the other propensities and the intellectual faculties.
Sanguine.	Amativeness. Combativeness. Self-Esteem. Hope. Marvellousness. Gaiety. Love of Approbation. Imitation. Eventuality. Language.	The contemplative faculties. Firmness. Destructiveness.
Bilious.	Amativeness. Attachment. Combativeness. Destructiveness. Self-Esteem. Firmness. Secretiveness. Comparison. Causality.	Gaiety. Marvellousness.
Nervous.	Destructiveness. Self-Esteem. Love of Approbation. Intellectual faculties in general.	Sensual Tendencies.

Note by the Editor.—We have made room for the preceding communication, because it is ingeniously and ably written, and because the subject is of so much importance, that no opportunity should be lost of extending our knowledge of it. There are many of the author's remarks with which we do not agree, but as every one ought to be fairly heard, we have left them unaltered, in the hope of leading our readers to make fresh observations. In the fundamental idea that one kind of temperament is more favourable to the exercise of certain faculties than another, we entirely concur; but that it necessarily implies their uniform predominance as features of character, is, we think, disproved by daily experience. In his descriptions, the author seems to us to assign mental peculiarities too much to temperament, and too little to development of brain, and if his views were sound to the extent which he believes them, the result would be, that the old physiognomical doctrine of the temperaments (perhaps in a somewhat improved shape) would almost supersede the phrenological philosophy. We trust, that the author will receive these remarks in kindness, and accept our best thanks for his communication. The essay displays so much acuteness and general talent, that we are glad to hail him as a fellow-labourer in the cause of truth.

ARTICLE XIII.

THE POPE *VERSUS* PHRENOLOGY.

MR GEORGE COMBE lately received the following letter from a friend in Rome:—

“ MY DEAR SIR,

ROME, 20th March 1837.

“ Thinking it might interest you to see a Papal advertisement of one of your works, I send you one, which has also been posted in large placards on the walls. The edict is, I should think, rather directed against Fossati than you: he, I think, was banished from Milan some years ago, for lecturing on Phrenology. Broussais' lectures are exposed for sale in some of the windows here.

“ The publishers of the proscribed books are, I believe, generally gainers by these edicts.

“ I have shewn your article on cholera (in the Journal) to several persons, who highly approved of it; and I was at one time in hopes of being able to get it translated and printed for circulation: but one who was very earnest at first, and even commenced the translation—took fright—and so at present the matter is at a stand; but I shall hope to succeed better another opportunity.”

As our readers may feel some curiosity to see a Pope's Bull, we subjoin the document entire.

D E C R E T U M

Feria III die 14 Februarii 1837.

Sacra Congregatio Eminentissimorum ac Reverendissimorum S. Romanæ Ecclesiæ Cardinalium a SANCTISSIMO DOMINO NOSTRO GREGORIO PAPA XVI. Sanctæque Sede Apostolica Indici Librorum praviæ Doctrinæ, eorundemque proscriptioni, expurgationi, ac permissioni in Universa Christiana Republica præpositorum, et Delegatorum, habita in Palatio Apostolico Vaticano, damnavit, et damnat, proscripsit, proscribitque, vel alias damna-

ta , atque proscripta in Indicem Librorum prohibitorum referri mandavit , et mandat Opera , quæ sequuntur :

Affaires de Rome , par M. F. de la Mennais. *Decret.*
14 Februarii 1837.

L'assedio di Firenze. Capitoli XXX. *Decr. eod.*

Religion Saint-Simonienne, Leçons sur l'industrie et les Finances , prononcées à la Salle de l'Athénée par J. Peréire , suivies d'un Projet de Banqué. *Decr. eod.*

Lettre du Père à Charles Duveyrier , sur la vie éternelle. *Decr. eod.*

Parole du Père , à la Cour d'Assises. *Decr. eod.*

Considérations Sociales sur l'Architectonique, par Victor Considerant. *Decr. eod.*

Iddio e l'Uomo. Salterio di Gabriele Rossetti. *Decr. eod.*

Nouveau Manuel de Phrénologie par George Combe , ouvrage traduit de l'Anglais et augmenté d'additions nombreuses et des notes , par le Docteur J. Fossati. *Decr. eod.*

Occident et Orient. Etudes politiques , morales , Religieuses pendant 1833—1834. de l'Ere Chretienne 1249—1250. de l'Hègyre par E. Barrault. *Decr. eod.*

Opere inedite di Fra Girolamo Savonarola , *vel alio titulo* „ Libri cinque dell' Italia *cujus initium* „ Dell' Italia „ Libro primo. I. Principi. *Decr. eod.*

Le Tombeau de toutes les Philosophies tant anciennes , que modernes , ou exposition raisonnée d'un nouveau système de l'Univers etc. Par R. B. *Decr. eod.*

Corso Completo di Lezioni di Teologia Dogmatica per uso delle Scuole Teologiche di Sicilia del Rev. Can. Michele Stella. *Auctor laudabiliter se subjecit et reprovabit.* *Decr. 22 Septembris 1836.*

Itaque nemo cujuscumque gradus , et conditionis praedicta Opera damnata , atque proscripta , quocumque loco , et quocumque idiomate , aut in posterum edere , aut edita legere , vel retinere audeat , sed Locorum Ordinariis , aut haereticae pravitatis Inquisitoribus ea tradere teneatur , sub poenis in Indice Librorum vetitorum indictis.

Quibus SANCTISSIMO DOMINO NOSTRO GREGORIO PAPÆ XVI , per

me infrascriptum Secretarium relatis, SANCTITAS SUA Decretum probavit, et promulgari præcepit. In quorum fidem etc.

Datum Romæ die 20 Februarii 1837.

J. Card. Justinianus Præfectus.

Loco + Sigilli

Fr. Thomas Antoninus Degola Ord. Præd.
Sac. Congr. Indicis Secretarius.

Die 25. Februarii 1837 supradictum Decretum affixum et publicatum fuit ad S. Mariæ super Minervam, Basilicæ Principis Apostolorum, Palatii S. Officii, Curiae Innocentianæ valvas, et in aliis locis solitis Urbis per me Aloysium Pitocchi Apost. Curs.

Joseph Cherubini Mag. Curs.

ROMÆ 1837 Ex Typographia Rev. Cam. Apost.

ARTICLE XIV.

PHRENOLOGICAL ANALYSIS OF PATRIOTISM. By Mr W. B. HODGSON. (Continued from vol. X. p. 301.)

“Non abs re fuerit tria hominum ambitionis genera et quasi gradus distinguere; primum, eorum, qui propriam potentiam in patria sua amplificare cupiunt, quod genus vulgare est et degener. Secundum, eorum, qui patriæ potentiam et imperium inter humanum genus amplificare nituntur; illud plus certe habet dignitatis, cupiditatis haud minus. Quod si quis humanis generis ipsius potentiam et imperium in rerum universitatem instaurare et amplificare conetur; ea procul dubio ambitio (si modo ita vocanda sit) reliquis et sanior est et augustior.”—BACON, *Nov. Org.* li. 129.

“Christian charity is friendship to all the world; and when friendships were the noblest things in the world, charity was little, like the sun drawn in at a chink, or his beams drawn into the centre of a burning glass; but Christian charity is friendship expanded like the face of the sun when he mounts above the eastern hills.”—BISHOP TAYLOR.—*Treatise of Friendship.*

I. The first evil consequence which I have stated to arise from the undue predominance of Patriotism as a rule of conduct is, that the glory or greatness of a country having been considered something different from the good of the individuals who inhabit it, the interests of the individual have been unjustly sacrificed to the collective body.

The great end of man's being is the perfection of his own nature. He is destined to progress for ever as an individual, not a form, a mere limb of a society, useless and unconscious except when joined to the great mass. I may be told that man was made for society. I grant it, but it was not that his own great interests should be sacrificed for its advancement, not that the unit of his existence should be merged in the whole sum, but because society affords the best field for the unfolding of his individual powers. It is there only that his faculties find their appropriate exercise. It is there that his intellect finds its materials and a stimulus to exertion ; it is there his benevolence and his integrity find their objects ; in short, it is there that his whole nature, moral and intellectual, is fitted for still greater and more rapid improvement in another state. The very name individual implies that he has an undivided and essential unity of nature ; something which belongs entirely to himself, and is quite distinct from others ; he has feelings, ideas, and character of his own ; he is to become great in himself not in the aggregate ; it is as a separate existence, not as a member of a body, that his nature is to be purified and exalted. The very vices of society may be subservient to the improvement of an individual mind ; the injustice, the deceptions of others furnish us with the trials of our fortitude and moral resolution ; without such temptations, in man's present condition, no virtue can be perfected, and such can be found only in society. I may be asked, Shall a man then not sacrifice his own interests to those of the greater number ? I answer, he ought not to sacrifice his real interests ; I admit that he ought, if called on by necessity, to risk his worldly prosperity, to expose even his life for the good of his countrymen, for the advancement of the happiness of the majority ; but I contend that these are not his real interests. That all these are great blessings it would be absurd to deny ; no one can do so without gross hypocrisy, or equally gross insensibility ; but they are valuable only in so far as they assist the promotion of the great end of our being, the perfecting of our moral and intellectual nature. When a man impoverishes himself, or loses his life, in his labours for the happiness of his fellow-men, this is not the loss, it is the attainment of our highest, our only real and permanent interests, such conduct is indeed styled self-denial, self-sacrifice ; but by self is here meant only the inferior part of self ; it is the subjugation of the lower principles of our nature to the more noble and exalted. And what but this is the great object of our existence ? When, then, we toil, or suffer, or die, for the good of our fellow-men, we do not destroy our own happiness, we insure it ; we do not sacrifice our real interests, we attain them ; we do not injure our own nature, we ennoble and perfect it. So far as a man's worldly advan-

tages are concerned; all should be held as little worth when compared with the good of others; but our own integrity, our peace of conscience, our only real wealth, our only real happiness, we ought to hold fast; we ought to despise wealth, and ease, and honours, and life itself, when put in competition with the good of others; but our own virtue, our own sense of justice, our own benevolence, whatever good to others we may fancy will be the result of their violation, we ought most unhesitatingly to preserve.

But, further, the permanent interests of society can never be inconsistent with our own. We are all human beings, partakers of the same nature, objects of the same Providence, subjects of the same laws, heirs of the same destiny. The ultimate happiness of all mankind, therefore, must be attained by the same means; and thus it is obvious that the real interests of all mankind are perfectly compatible. It is by the application of this principle that we may distinguish real, enduring, blessings from temporary and unsatisfactory enjoyments. Those are the only real blessings of which we do not deprive others by our own attainment of them. Others may become poor because we become rich; others may be humble because we are exalted; others may pine in wretchedness, because we roll in luxury; but it is impossible that any can be wicked because we are good, that any can be cruel because we are benevolent, that any can be profane because we are pious, that any can be unjust because we are upright. Thus are all men's real interests identical; and thus when we prefer our own virtue, our own moral principle, to the aggrandizement of our country, we do not injure our country; its territory may be less extended, its wealth less abundant, its wealth among nations less conspicuous; but neither territory, nor wealth, nor rank, when obtained by the sacrifice of justice, is a permanent blessing; and our country is not less just, not less virtuous, because we refused our sanction to the commission of injustice. Nay, further, when we maintain our own integrity, we advance the real interests of the society or country to which we belong. The real interests of a country can be insured only by the attainment of those of its individual inhabitants. And here again, we have a test by which we can discover the real interests of a nation. A country, as a country, may be powerful, as a country, it may be rich; but the power and riches may be confined in the hands of a few, and the great majority may be sunk in poverty and degradation; it may possess great renown in other regions, it may conquer other nations, and extend its confines on every side; and yet at home all may be anarchy and wretchedness; as, for example, at Rome, where, during the civil wars, both its foreign greatness and domestic misery, the power of the state, and the debasement of the individual, reached at

once their greatest height. But, a country cannot be good while the majority of its inhabitants are depraved ; or happy while the majority of its inhabitants are wretched. By increasing, then, the amount of virtue in a state, you effectually consult its real interests. Every victory over selfishness and propensity in the individual adds to its true greatness ; no effort for the attainment of virtue is lost ; every step which an individual takes in the path of moral improvement, not only elevates himself, but augments his influence over others ; his instructions and example operate on the minds of all around him, these again act on those with whom they are connected, the impulse once given extends in an ever-widening circle, and it is thus good is multiplied, and it is thus good will ultimately prevail. I will not here enlarge on the natural and invariable tendency of obedience to the moral laws, to increase even the temporal prosperity and happiness both of individuals and nations. That such is the fact it would be more easy than necessary to establish.

Men, believing it their highest duty to advance the interest of their country, and being in a great measure ignorant of what constituted this, have indeed sacrificed themselves for the attainment of this end ; but there is great reason to fear that it is the noblest principles of their nature, rather than the lowest, which have in most cases been sacrificed. Self is usually understood to mean the lower parts of self, but it might with much more reason be contended, that it is the higher powers, man's peculiar endowments, which constitute his real, immortal self. And in this sense has self-sacrifice been too prevalent in the world ; it is its prevalence in this sense of which I have to complain. Not the least of the evils resulting from this fundamental error is the distinction between individual and political morality, the establishment of one moral code for the individual and another for the state.* The most obvious laws of justice have been violated, and the simplest principles of right have been contravened, but no crime has been committed if these violations had for their object the aggrandizement of a state. A king, as representative

* Sir Henry Wotton was employed by James VI. as Ambassador to the republic of Venice. As he passed through Augsburg he was desired by a literary character to write something in his album ; he wrote in Latin, " an Ambassador is a good man, sent abroad to lie, for the good of his country."

" Toutes les absurdités, qui ont été délutées sur le droit politique viennent de ce qu'on a cru que les princes, et les peuples, n'étaient pas soumis aux mêmes devoirs que les particuliers."—*Essai sur les Préjugés*.—Lond. 1770.—We find this doctrine even in Plato, "*ταῖς ἀρχαῖσι δὲ τῆς πόλεως ἐστὶν ἀρετὴ ἑστῆς ἀλλοι, προσηκόντι ψυδιστάσι δὲ πολέμῳ ἢ πόλεως ἵστασι ἐστὶν ἀρετὴ τῆς πόλεως.*" *De Repub.* iii. In his Dialogue on Justice, he illustrates the change of the moral character of actions according as they are performed to a friend or to an enemy, by the hands or eyes, which are called right or left, according as we speak of them as they appear to ourselves, or to the person opposite to us.—Both these passages he puts into the mouth of Socrates.

of the state, has been gifted with the power of dispensing with divine no less than human laws. We now happily seldom hear of this distinction, but, at no very distant period it was almost universal. When the unhappy Charles First pleaded, that to pass the bill of attainder against the Earl of Strafford was contrary to his conscience, Williams, Archbishop of York, demonstrated that there were two sorts of conscience, public and private, and that his public conscience as a king might dispense with his private conscience as a man.* Another fatal and melancholy result may be traced in the systematic and entire subjection of all moral principle in thousands of men to the fancied interests of their country, universally prevalent in the military establishments of our own and other nations. This is one of those institutions to whose presence we are reconciled, and to whose real nature we are blinded, by the deadening influence of habit. What we see before us every day does not excite our attention, and its absurdity, however great, never engages a single thought. But can any thing be more monstrous than that thousands of free agents, of moral and responsible beings should, on any account whatever, divest themselves of the right of acting as their own conscience directs them, and should commit their whole moral nature to the keeping of others; should swear never to question the commands of a superior, but to obey them, however repugnant to their own ideas of justice and benevolence? Surely nothing can be more monstrous than this voluntary desecration, this voluntary trampling on the highest privilege and glory of human nature. The whole tendency of this system is not merely to weaken, but utterly to prevent in its victims, all perceptions of right and wrong. It substitutes a false standard of moral obligation; it tests the merit of actions not by their accordance with God's will, or his voice speaking in man's own heart, but by their consistence with an unnatural discipline, and the command of a temporary superior.† And

* D'Israeli's *Curios. of Liter.* 2d series, vol. ii. p. 15.

† Capt. Basil Hall, in an article on the Austrian army (*United Ser. Jour.*, Oct. 1835), censures the custom of allowing soldiers of inferior rank to be members of a court-martial. The reason he assigns is in his own words as follows—"The duty of an inferior is to obey implicitly and without reflection. The practice of command begets habits of judging of the character, conduct, and motives of others, and enables an officer to make a just estimate of offences, . . . but the whole course of thought and action of the inferior has a tendency to destroy that independence of judgment, and the habit of considering the merits of other men's conduct, which is indispensable in persons who are to sit on the trial of others." The principle here recognised seems to me to warrant a much more important and extended conclusion than that which Capt. Hall contents himself with drawing. To my mind it furnishes a powerful argument against the whole present system of military establishments. I may be told that without such a system war cannot be conducted. But the true inference from this statement, even granting it to be correct, is, not that the system is proper, but that war is improper. An institution, which on broad principles is proved to be an abuse,

yet all this is consecrated under the specious names of patriotism and solemn duty ; and creatures, who have, of their own accord, ceased to be men, and become machines, are honoured as patriots and heroes ! The same original fallacy we see operating in the practice of encouraging trade in articles injurious to the inhabitants of a country, because they yield a large revenue to the state.

"The excise is fattened with the rich result
Of all this riot ; and ten thousand casks,
For ever dribbling out their base contents,
Touched by the Midas finger of the state,
Bleed gold for ministers to sport away.
Drink, and be mad, then, 'tis your country bids !
Gloriously drunk, obey the important call !
Her cause demands the assistance of your throats ;
Ye all can swallow, and she asks no more."

COWPER, Task, b. iv.

And in the right, or rather power, which society has assumed of disposing of the lives, and we know not how far the immortal destiny, of individuals, under pretence of defending its own safety ; I mean the legalized murder, known by the name, capital punishment. My limits forbid me to enlarge on these and other ramifications of the grand error too long committed in drawing a distinction between the interests of an individual and a state, or collection of individuals, and in erecting the latter into an unreal supremacy over the former. I must hasten to the second branch of the subject which I propose to illustrate.

II. The interests of mankind at large have been too much neglected for those of a single nation. This result may appear opposed to the former, that consisted in the elevation of a whole to the injury of its parts ; this in the elevation of a part to the injury of the whole. But they are really consistent ; both have the same origin,—ignorance of the universal rights and interests of man as man. These are still but imperfectly understood : society has indeed advanced ; men have ceased to bound their wishes by their own individual gratification, they have recognised in some degree the claim of others on their sympathy and assistance ; but their views have been confined within too narrow limits ; it is to those almost entirely whom nature has placed in the same society or country to whom this benevolence has been hitherto extended. Hence the neglect of the good of mankind, when it seemed to clash with that of a particular nation. I trust

is not the less an abuse, because it is necessary to the support of another abuse still greater. Military flogging is generally and justly considered degrading and inhuman ; but the best judges on the subject inform us, that without it, military establishments, as at present constituted, cannot be maintained. Considering their nature, it is by no means surprising that such should be the fact ; but from this it does not follow that flogging is justifiable, but that military establishments are improperly constituted. And so it is in the present case. But the subject merits and requires separate consideration.

that I have already shewn that the *real* interests of nations, like those of individuals, can never be opposed; but their *imagined* interests can be opposed. And it is these which men have most eagerly pursued, and their attainment has been sought by any means, however inconsistent with the good of the whole human race, whose rights were so little understood. When, to this ignorance of the rights of mankind, and of a nation's true interest, we add the consideration that, under the name of patriotism, the advancement of one's country's supposed good has been consecrated as the highest virtue, we have at once an explanation of the extent to which the rights of man have been violated for the aggrandizement of a few. For examples we do not require to seek; they offer themselves in lamentable abundance.

To the patriotism of the ancient Romans, I have already alluded. Their country mingled with their every thought; every place they visited, however slight the resemblance, suggested the recollection of their native land; when they saw the Tiber rolling beneath them, they exclaimed, "Behold the Tyber;" all other nations they considered as barbarians; in their language, the same words denoted a stranger and an enemy; abroad and warfare were synonymous.* The very tyranny which they practised at home, strengthened their love of independence, and their impatience of all subjection to a foreign power.† The advancement of Rome's greatness, accordingly, was regarded as a sufficient justification of the misery which everywhere marked their desolating career. Thousands of fellow-beings were slain in their patriotic wars, but the number of Rome's enemies was diminished; and what were the lives of barbarians when weighed

* *Hostis*. Domi militiæque, or the equivalent phrase, Belli domique. It is a strange fact, that the Romans had no single word to express either patriot or patriotism. The Roman character is admirably summed up in the following passage:—"Conchirede la mente mia ch'eglino furonos grandi più che buoni, illustri più che felici, per istituto oppressori, per fortuna mirabili, per indole distruttori, generosi, nelle malvagità, eroi nelle ingiustezze, magnanimi nelle atrocità. Per le quali funeste illusioni tanto ancom ne simbomba la fama, che la strepito suo fa timido il giudizio di molti, e sommerge la voce de'saggi."—Perri. Notti Rome. N. 3. Coll. vi.

† It has been often remarked with astonishment, that the greatest lovers of personal freedom have often been the greatest tyrants. Phrenology furnishes a simple, because philosophical, solution of this seeming inconsistency. It teaches that one feeling, Self-esteem, produces both impatience of control and love of power; reluctance to obey, and wish to command. Men, accordingly, must receive considerable moral and intellectual enlightenment before they will vindicate their own rights without infringing those of others. The early reformers had not long shaken the yoke of spiritual domination from their own necks, before they sought to impose it upon that of their fellow-converts. Washington, the liberator of America, was a slaveholder, and, with the true spirit of ill-regulated Self-Esteem, returned under cover, an indignant remonstrance addressed to him, on the subject, by Bushton, the sightless philanthropist of Liverpool. In the same way slaves were emancipated as soon as they reached the soil of Britain, long before slavery ceased in our colonies.

against the security of Rome ; millions were thrown into chains and reduced to servitude, but Rome was freed from the dread of slavery ; nations were impoverished, but Rome was enriched ; cities were destroyed, and rifled of the most splendid monuments of art, but they decked the palaces of Rome ; countries were depopulated, but the crowds of Rome were swelled by their inhabitants ; poverty and wretchedness in all their varied forms surrounded them when abroad, but they thought of the magnificence of Rome, and hardened their hearts against compassion. No cruelty was too inhuman, no perfidy too detestable, no fraud too mean, no injustice too gross, to be considered innocent and praiseworthy, if its object was the aggrandizement of their country. From this miserable delusion their very greatest minds were not exempt ; "Carthage must perish," was the theme of Cato's every speech ; and their historians, when they were constrained to acknowledge the injustice of many of their wars, extolled as heroes the men who had conducted those very wars, and brought them to what they called a happy termination. Thus one writer confesses that war was declared against the Carthaginians, not because they had given any just cause for hostilities, but solely from jealousy of a rival state. And yet this very writer represents the life of Scipio, who carried on that war, as one uninterrupted series of virtuous and praiseworthy actions.* What is still more extraordinary, another author does not hesitate to admit that there was not even a colourable pretext to justify the war against the Numantines, and yet, in closing his account of this very war, he says, "Up to this period the Romans were virtuous, excellent, pious, upright, and glorious."† It would appear, therefore, that, in the judgment of these writers, neither the state which commences an unjust war, nor the general who conducts it, derogate from the uprightness of their respective characters.‡

The same spirit reigned among all the nations of antiquity, and nowhere more than in the rival states of Greece, before they were swallowed up by the Roman power. The very limited extent of their several territories increased their mutual hostility, in verification of the remark, that "the narrower the circle, the more ardent the patriotism."§ The Athenians, in return for the important services rendered them by the Platæans in the

* "*Famque urbem, magis invidia imperii, quam alius ejus temporis noxiæ invisam Romano nomini, funditus sustulit, fecitque suæ virtutis monumentum.*"—Vell. Paterc. I. 12.

† "*Hactenus Populus Romanus pulcher, egregius, pius, sanctus, atque magnificus.*"—Florus. II. 19.

‡ See Verril's *Notti Romane*, N. II. Coll. 3, 4, and 5. Jephson's *Roman Portraits*, p. 8. Schlegel's *Philos. of Hist.*, Vol. I. 329, 331, 332, 347. Lucan. *Phars.* I. 199. And Note p. 184, Melmoth's *Tranala. Cic. de Amicit.*

§ Bulwar, *Last Days of Pompeii*, Vol. I. 220.

Persian War, enacted, as a special favour, that that people should be included in the public prayers offered up at Athens. Even Aristotle, perhaps the profoundest thinker of ancient times, advises Alexander to govern the Greeks like subjects, and the barbarians like slaves, for that the one he was to consider as companions, and the others as creatures of an inferior race.* It is the wide prevalence of this feeling, that renders so splendid the panegyric which a modern historian pronounces upon Aristides, that noble exception: "Aristides had learned to prefer glory to pleasure; the interest of his country to his own personal glory; and the dictates of justice and humanity even to the interests of his country."†

Among the Jews, the exclusive spirit was the very essence of their national existence. The Father of mankind was in their eyes only the God of Abraham, Isaac, and Jacob; Jerusalem, the Holy City, was his peculiar dwelling-place, and the doctrine of the salvation of the Gentile outcasts was to them an insurmountable objection to the Christian religion.

Such was the condition of the world in ancient times; and even since the dawn of Christianity, by which the equality of all mankind has been disclosed, the same appearances present themselves. The horrors of war have indeed been mitigated, and the ferocious passions of man have been greatly tamed. But still the aggrandizement of one's country has been regarded as an unanswerable pretext for warfare. If patriotic wars have been less cruelly conducted, they certainly have not been less frequent; and in some respects they have even been more dreadful; for the purest and most peaceful religion ever promulgated among men, has been perverted to their consecration; men's zeal for country has been increased and hallowed by their country's religion; the banner of the Cross has been unfolded, and "under this sign conquer," or, "'tis the will of God," has been the cry. While Christianity has been perverted and degraded to the support of national antipathies, to which its whole spirit is opposed, other religions, and especially that of Mahomet, have received from them their form and vitality. An intelligent writer observes:—"Among the Arabs, those free and warlike pastoral nations, the feelings of clanship, the pride of noble descent, and the glory of an ancient and renowned race, and, again, the mutual hostility of tribes transmitted from one generation to another, the never-to-be-cancelled debt of blood, form

* Aristot., vol. i. c. 3, 7.

† Gillies Hist. of Greece, c. 9, Jones' Edition, p. 97. "It was a noble sentiment of Fenelon, 'I love my friend as much as myself; my country far better than my friend and myself; mankind in general beyond all put together.'" Hon. Temple Luttrell; Hazlitt's Brit. Sen. Vol II. 118. "He would lose his life to serve his country, but would not do a base thing to save it." Character of Andrew Fletcher.

the ruling and animating principle, nay, the almost exclusive purpose of existence. This *tribe-spirit* of the Arabians has had a mighty influence on the origin and first development of the Mahometan religion, and has stamped on it a peculiar character.*" All modern history, as well as ancient, is but one dreary record of wars and bloodshed, wars, holy and patriotic, and "glorious victories," redeemed only by occasional glimpses of justice and benevolence.

It is on this feeling also that your conquerors have wrought; the men who have appeared at intervals, like comets, in the political horizon, but who "perplexed the nations" with better founded fears; the men who seek their own glory, their own advancement, but whose pretext is their country's greatness and emolument. Had the patriotic spirit in the general mind been duly regulated, the power of such men for evil would have been but slight. Nations would have considered their own elevation dearly purchased at the expense of justice and of mercy; and a small return for so much misery and bloodshed to themselves and others.

Even where this national spirit, this disregard of mankind, has not burst forth in war, it has still exercised a most pernicious influence in retarding the advancement of the world. It has prevented the diffusion of kindly feeling, and useful knowledge over the earth. Thus, if a Japanese become the friend of a foreigner, he is considered guilty of treason against his emperor. No nation has been more renowned for this exclusive spirit than the Chinese; foreigners are held in utter detestation and contempt; their sympathies never travel beyond the limits of their own great wall. They do not indeed make frequent incursions on other states, but they seek not their good; they have no desire to increase their happiness and comfort. Now, many of the most useful discoveries of European science are supposed on good grounds to have been known centuries before in China. The mariner's compass is generally believed to have been invented about the beginning of the fourteenth century.† The Chinese, however, are understood to have been much earlier acquainted with this instrument; and, as it is to it we are wholly indebted for our knowledge of navigation, and of the earth, had it been introduced into Europe immediately after its original invention, how much more rapidly must both science and commerce have progressed? There is some probability that printing also originated in China, where it was practised long before it was known in Europe.‡ Another remarkable instance of the ten-

* Schlegel, *Philos. of Hist.*, vol. ii. 79.

† Its invention is generally attributed to Flavio Gioia, a native of Amalfi. Robertson's *Hist. of America*, B. I. It is alluded to by Dante, who died in 1321.

‡ D'Israeli's *Cur. of Lit.*, 1st Ser. vol. i. p. 137.

dency of this exclusive spirit to retard the advancement of humanity may be mentioned. Before the invention of paper, Europe was supplied with papyrus from the Nile. But, when Egypt was invaded by the Saracens, this trade was at once interrupted. Peaceful intercourse with foreigners was a thing unknown. The monks in Italy and other parts of Europe having no materials on which to write, erased the manuscripts of the ancient classics, and inserted their own homilies in their stead. Such erased manuscripts are termed *Psalimpsests*, and some of them are still preserved.* We have no means of ascertaining how many works have perished in this way; but it is obvious that, had the trade been much longer interrupted, all or nearly all, those valuable productions would have been destroyed. No one will deny that such a consummation would have been attended with most disastrous consequences to Europe, and, indeed, the world at large; for, however the utility of the Greek and Roman authors at the present day may be questioned, it is universally admitted that they gave a new impulse to the human mind, and assisted greatly to remove the ignorance and intellectual torpor of the dark ages.

Still more, the world is constituted on the principle of retribution, and the evil results of national antipathy are not confined to the oppressed; they are still more fatal to the oppressors. A nation which would elevate itself by the degradation of others, poisons the sources of its own prosperity and enjoyment, impairs its real strength, and precipitates its fall. How consistent on this point is the history of every mighty dynasty? Their downfall has not been less rapid than their domination has been extensive. The records of the Roman empire, of the empires established by Alexander, and Zengis Khan, teach with equal eloquence the folly of all designs to aggrandize exclusively a single nation. We see the Romans warring with every people, and conquering all with whom they warred, and triumphing in their supremacy over the whole known world; but their empire was not founded on enduring principles, on mutual acknowledgment of rights and community of interests; nations were subdued, but they were not amalgamated with their victors;†

* *L'Esprit des Croisades*. D'Israeli's *Curios. of Lit.*, 1st Ser. vol. i. p. 30. Ed. 1823. In some cases the erasure was not complete, and fragments of classical writers have been deciphered. Angelo Maio, the librarian of the Vatican, about twenty years ago, detected under St Augustine's commentary on the Psalms, the greater part of a much regretted work by Cicero, "*De Republica*," in which it is very remarkable that he fixes on the *theory* of the British Constitution as the most perfect model of government.

† Fox's *Speeches*, vol. ii. p. 62. Montesquieu expresses this idea with his usual conciseness; he says of the world under the dominion of the Romans, "*ils ne faisaient un corps que par une obéissance commune et sans être compatriotes, ils étaient tous Romains.*" *Empire Romane*, C. 6. "I know not

they indeed bore the yoke, but they waited in sullen silence the opportunity to throw it off; and when this came, Rome sank and perished beneath their force. The recent failure of Napoleon also, in his designs at universal empire, is an additional confirmation that, in the nature of things, it is impossible for such attempts to be attended with ultimate success. The details and facts of political economy amply bear out the conclusions on this subject which are founded on the broad and extended basis of morality, and prove that efforts to foster the commerce of one nation by deceit or injustice to others, draw after them a signal punishment. *

(To be concluded in our next.)

[The author of this article not having had an opportunity of revising the previous sheet, several typographical inaccuracies have escaped notice. The following are the errata which chiefly affect the meaning:—Page 603, line 3, *for* not a form, *read* not to form—P. 604, line 18 from the bottom, *for* wealth *read* rank—P. 606, line 6 from the bottom, *for* prevent *read* pervert—P. 608, line 4 from bottom, *for* Bushton *read* Rushton]

(says Dr Johnson) why any but a school-boy in his declamation should whine over the commonwealth of Rome, which grew great only by the misery of mankind."—Boswell's Life.

* A remarkable example of this principle occurs in the history of the silk manufacture. (Lardner's Cyclop.) In order to lessen the fluctuation of the silk trade consequent on the entire dependence of this country on home demand, the admission of foreign manufactured goods was, in 1824, declared legal after the 5th of July 1836, under a rate of duty which was then deemed sufficient protection to the home manufacturers. By this arrangement a period of two years was allowed to them to prepare for the fall of prices which would of course ensue on the introduction of foreign goods. It was not at first perceived that this time would be employed by the French in preparing silks to send over to this country, as soon as their admission should be legal. This, however, was the case; and it was thought advisable to render their labour useless. Accordingly, an act of Parliament was passed forbidding silks of any but certain lengths to be imported. The size appointed was quite different from that of the silks usually made in France. The French determined not to be undone in this way; they, therefore, worked harder than ever to prepare pieces of the required length; great numbers of these were thrown into the English market the moment the law came into operation, while the pieces which they had before made, falling in price, passed into the hands of the free trader, and were introduced into this country at so low a rate as to undersell and almost ruin the home manufacturers who had thus two rivals with whom to compete. Exclusiveness in trade is equally pernicious to a nation. H. D. Inglis, in his work on "The Tyrol," mentions some facts which put this in a very clear light. It is a curious circumstance that the Chinese have made no real use of any of the discoveries or inventions, such as the magnet or gunpowder, which they have withheld from other nations. Schlegel's Philos. of Hist., 1, 96. Political economy, as well as morality, enables us to estimate the character of a man, whose fame rests on his reiterated declaration, "I hate the French;" and the pretensions to heavenly birth of the minister who could affirm, that every commercial benefit conferred on Ireland was an injury to England.

ARTICLE XV.

SHORT COMMUNICATIONS.

Animal Magnetism.—We have received an unreasonable note, dated the 18th of March, from "A Subscriber" in Dundee, addressed to Mr G. Combe, in which the "Subscriber" says, "Can you, Sir, with any consistency, blame the opponents of Phrenology for declaring that *there is nothing in it*, without giving themselves the trouble to *know any thing of the subject*, when you can profess yourself ignorant of the subject of animal magnetism?" We answer, what indeed the "Subscriber" himself acknowledges, that we have never said of animal magnetism that there is "nothing in it." Whenever we have mentioned it, we have done so with respect. Now, if the opponents of Phrenology would act in the same manner towards our science, we would not blame them. Indeed, we have not blamed any one for mere ignorance, if he did not, in the confidence of that ignorance, denounce Phrenology as objectionable. But we may inform "the Subscriber," that although Mr George Combe considers himself "wholly unacquainted with the merits of animal magnetism," he has read several French works on the subject, which contained an able exposition of its facts; farther, that he was intimately acquainted with the gentleman referred to in his *System* (p. 633, 4th edition), who believed in, and attempted to practise it; but that neither from these works, nor from the instructions of his friend, could he comprehend the principles of animal magnetism, or bring its facts into harmony with any of the known laws of Nature. He, therefore, did not see cause, from that study, to modify any of his phrenological opinions. If we do not read "*Isis Revelata*," even after being assured by the "Subscriber" that we shall there find that the mind "sometimes shifts its quarters to the *belly*," it must not be supposed that we mean any disrespect to Mr Colquhoun. We offer evidence of our own affirmations; and whenever the author of *Isis Revelata* shall shew us cases of men with small brains, manifesting vigorously the mental faculties by means of their intestines, we shall be the first to flock to his school, and to surrender all our preconceived notions in favour of the new light.

In the following beautiful passage from the First Book of Osorius' Treatise "*De Gloria*" (Florent. 1552), we have a recognition of the great doctrine of Phrenology, that all the faculties of the human mind are excellent in themselves, and that evil arises only from their abuse:

"Assuredly no principle has been implanted in our minds, in which we may not trace the Divine benevolence; but we

ourselves, using perversely those natural principles which have been given us for our good, madly turn them to our own destruction. For anger, desire, hope, fear, pain, pleasure, and the other feelings of the same description, by which we perceive our minds to be inflamed or cooled, excited or depressed, expanded or contracted, or influenced in any other way, have been bestowed upon us, that, avoiding what is injurious, and seeking what is beneficial, we may preserve our natural condition; but all these we too often pervert to evil purposes, and the subversion of our own felicity. And the higher and nobler are the endowments which we have received, the greater are the evils in which their abuse involves us. For God has given us reason, by which we are most distinguished from the brutes, and approach most nearly the Divine nature; but often by the ill-regulated employment of this very reason, we devise crimes which sink us in depravity below the brutes. We have received also from Nature minds imbued with a religious principle, under the influence of which, (for in God's works we trace his agency providing for the good of man,) with pure and pious reverence we adore his glorious attributes. But by the folly of man, from this natural instinct has been derived superstition, stained with every crime, which, spreading through all nations, has crushed for many ages the powers of almost every mind, and has involved mankind in boundless misery. No faculty, in short, has been granted us by nature, which is not well suited either to the protection of the body or the improvement of the mind; but too frequently we abuse these gifts of the Divine bounty to our own injury and degradation."—W. B. H.

The Use and Abuse of Secretiveness are thus discriminated by Jeremy Taylor, in his Sermon on Christian Simplicity:—

"Neither doth the sincerity of our religion require that we should not conceal our sins; for he that sins, and dares to own them publicly, may become impudent; and so long as, in modesty, we desire our shame should be hid, and men to think better of us than we deserve, I say, for no other reason but either because we would not derive the ill examples to others, or the shame to ourselves; we are within the protection of one of Virtue's sisters, and we are not very far from the kingdom of Heaven; easy and apt to be invited in, and not very unworthy to enter.

"But if any other principle draws the veil, if we would conceal our vices because we would be honoured for sanctity, or because we would not be hindered in our designs, we serve the interest of pride and ambition, covetousness or vanity. If an innocent purpose hides the ulcer, it does half heal it; but if it retires into the secrecy of sin and darkness, it turns into a plague, and infects the heart, and it dies infallibly of a double

exulceration. 'The Macedonian boy that kept the coal in his flesh, and would not shake his arm, lest he should disturb the sacrifice, or discompose the ministry before Alexander the Great, concealed his pain to the honour of patience and religion: but the Spartan boy, who suffered the little fox to eat his bowels, rather than confess his theft, when he was in danger of discovery, paid the price of a bold hypocrisy. That is the dissimulation reprobable in matter of manners, which conceals one sin to make way for another.'—W. B. H.

Linn, the Belfast parricide.—In the 49th Number of the Phrenological Journal, we published the case of John Linn of Belfast, who, after committing parricide, was confined as a lunatic, and, by lulling suspicion, eventually made so effectual an escape that no trace of him could be found. We have since learned from a paragraph in a Dublin paper (*Saunders's News-letter* of 3d September 1836), that Linn reappeared there, having been brought to the head police-office, after committing an additional murder in Liverpool. The particulars given are the following: "Informations were sworn before Alderman Darnley on Thursday, that a most determined and desperate lunatic, named John Linn, who had escaped from confinement, was in Dublin, and that his being at large would be attended with considerable danger to individuals." After mentioning the murder of his father and subsequent confinement, the paragraph proceeds to say, that after escaping he had gone to Liverpool, whence he had returned to Ireland a few days before his apprehension. Two officers who were sent to secure him found him in an eating-house. When asked his name, he said it was M'Gouran, and after some conversation the officers seized him. He struggled greatly, and made an attempt to take two loaded detonating pistols from the breast of his coat. He was with difficulty conveyed to the watch-house in Fleet Street, and twelve watchmen could not put hand-cuffs on him. From Linn's own confession, it appeared that he had taken a place some days before in a vessel bound for America, but that it was forced to return to Liverpool, where he went on shore. Some information having been given, the police of the port went to arrest him, but he shot one of them, and fled to Dublin. The magistrates of the head-office gave orders for the transmission of the prisoner to Kilmainham, and the police, it is added, were obliged to get a float to convey him, for no force could have got him into a coach. Linn stated that his intention in returning to Ireland was to proceed to Belfast, in order to murder his wife and children, and then kill himself.—R. C.

Proceedings of the Phrenological Society of Aberdeen.—

Aberdeen, 30th March 1837.—Mr Combe, before finishing his course of lectures on Phrenology, delivered here in October last, gave a lecture on Education, the proceeds of which were handed over to aid in the formation of a Phrenological Society in this city. The sum realized was very handsome; and the persons who took an active part in getting the society established were consequently enabled to purchase the large collection of casts which Mr Combe brought with him for the purpose of illustration in the course of his lectures; and also to fix the entry-money and yearly contribution to the society on a scale as moderate as that it should be accessible to all who might choose to become members. The ignorant opposition against which every new discovery has had to contend, was manifested in a small way against the establishment of a Phrenological Society in Aberdeen. One said the science of Phrenology was subversive of religion—another that it destroyed human responsibility—a third that it overturned all the received principles of mental philosophy—a fourth that it was not capable of producing either good or evil, and therefore was unworthy of investigation. None of these wiseacres, however, when brought to the test by interrogation, seemed to possess any knowledge of Phrenology except what they had gathered from the *ex parte* statements and misrepresentations of the Edinburgh Review, and other uncandid critics, who, like the Irishman, prefer deciding before hearing the evidence. It would be difficult to say whether any individuals have been deterred from becoming members of the Aberdeen Phrenological Society on account of the *objections?* above enumerated; but, at all events, the society, both as to the number of members and the respectability of talent, has exceeded rather than come short of what was anticipated. There are now about fifty members belonging to the society, and the number is gradually increasing. The society meets once a fortnight, commencing on the first Tuesday of October, and continuing for six months; and at these meetings essays are read and questions discussed on all subjects connected with mental science. The society was only constituted in the beginning of December last. Since that time four essays have been read in the society: On 20th December, an introductory essay on the truth of Phrenology; on its superiority, even as a theory, over every other system of mental philosophy; and on the advantages to be derived from a practical application of its principles:—on 17th and 31st January, essays on taking development, and on the experience requisite, and caution necessary, to be used in order to avoid errors:—and on the 28th February, an essay on causation, and on the organ of Causality. This last essayist pointed out a difficulty which, in the present state of Phrenology, does not seem to be very easily accounted for. “It is acknowledged on all hands,” said he,

"that Dr Brown had the organ of Causality large, and that he manifested the faculty throughout his writings; but in his definition he excludes—solemnly excludes—the very feeling of the mind which, according to Phrenology, is connected with the organ." The essayist could not think of any solution to the problem, but by supposing that the function of Causality had a broader basis than that assigned to it by phrenologists. The other evenings of meetings were spent in examining the *casta*, and in discussing questions connected with Phrenology.

Letter on the Functions of Locality.—*Wiveliscombe, May 4. 1837.*—SIR, I am much obliged to you for your remarks at the end of the paper on Locality, in the last number. Perhaps, if you have a spare corner in your "Short notice" page, you will be kind enough to insert this letter, or the substance of it. I have never seen the paper in the fourth volume of the Phrenological Journal to which you allude, and am therefore to a great extent ignorant of Dr Gall's opinion of the nature of the faculty called Locality. A *special faculty* for the position of objects seems to me an unnecessary multiplication of faculties, which is of course, to my own mind, *prima facie* evidence that none such exists; and besides, I think it wants the essentials of a fundamental faculty. I knew that some phrenologists had traced the recollection of places to its supposed fundamental faculty of relative position, and my object was an attempt to prove that the recollection of places does not depend entirely upon relative position, and that relative position itself is not a fundamental faculty, but is dependent upon that which Mr Edmonson calls "Verticality," and what I would designate by the more comprehensive term of Direction, meaning by that a perception of straight lines in all their relations and directions. I have been looking out for contradictions to the theory, but have as yet found none. Your obedient servant, W. HANCOCK JUN.

Remarks on Tune as the Organ of Sound.—No one will object to Mr Simpson's assertion, that there must be a faculty of Sound, or probably to his analysis of the nature of Sound. Possibly also the organ called Tune may be that of Sound, but there seem good grounds for disputing his idea that the perception of sounds, and of the harmony of sounds, is the same. Mr Simpson must surely have overlooked the fact that some of the inferior animals have the most exquisite sense of hearing, combined with little or none of harmony; this seems almost conclusive that sound and tune cannot be the same. Those who have the best emphasis and most pleasing intonation in speech, are by no means always *ceteris paribus* the best singers, or the fondest of music. Nor is there any connection between fondness for music and good accent in a foreign language, which there inevitably

would be, if Mr Simpson were correct. Many persons who do not know one tune from another, speak foreign languages with excellent accent. The fondest of music have not the greatest facility of knowing persons by their voices. Mr Simpson says, "all sounds are musical;" if, then, sound and tune are the same, what can make any simple sound disagreeable? If it be musical, it cannot offend tune, and if it do not offend tune, it cannot offend sound, they being the same. If tune be but a higher degree of sound, the exercise of the faculty of sound, even on the most disagreeable simple sounds, must directly improve tune. Would it not be thought preposterous to attempt the cultivation of harmony or melody by the rumbling of the miller's mill, or the strokes of a blacksmith's hammer? And yet, if the perception of harmony and melody be but the higher degrees of the faculty of sound, such a proceeding would seem to be strictly philosophical. All these things appear to support the prevailing idea, that the perception of *sounds in themselves*, and of the harmony of *sounds in combination*, are distinct faculties. Can there be an organ whose special faculty it is to harmonize, or rather to perceive, harmony in general? There certainly is a harmony of colours, and as certainly a harmony of sounds. There seems to be a harmony of forms, and order seems something like harmony in the arrangement of objects. All these, except music, are loosely accounted for, by reference to the very undefined thing called taste. Dr Kitchener would probably comprehend the harmony of flavours (this might certainly be referred to taste); and a man great in perfumes would not scoff at a harmony of odours. Without joking, there *may be* laws for both. The splendid work of M. Vimont contains the following observations, which go directly against Mr Simpson's theory, 2d part, page 270:—"The ear apparatus is generally very complicated among quadrupeds. In describing the temporal bone, I mentioned the great development of the cavity (*caisse*) in several species, such as the beaver, the hare, the rabbit, &c. It is probable that the great volume of this bony portion contributes to make the sense of hearing more delicate among these animals. We may add, that in the hare and rabbit the ear forms a sort of horn, admirably adapted by its construction to receive and reflect sounds. All the family of nocturnal birds, and that of the genus *Cervus*, have a very extensive hearing apparatus," (none of these, surely, shew any peculiar sense of harmony). Of man he simply says, "The essential point for phrenologists is to know, that man is among the most favoured of animals in this respect;" and, in alluding to the very point in question, "Experience shews, that men who possess an extremely delicate sense of hearing frequently manifest no taste for music, whilst great musicians are often found with but a feeble sense of hearing. Those birds which have the most com-

plicated acoustic apparatus, nocturnal birds for example, have no musical talent. The acoustic apparatus is absolutely the same in some species, and yet the male is a beautiful songster, whilst the female sings less perfectly, or not at all." We must then conclude, that the auditive apparatus has for its especial function the transmission of sounds to the brain, and that the transmission of sounds is much facilitated by the arrangement of its different parts; but that the appreciation of sounds (*l'appréciation de sons*) must be attributed to a particular cerebral organ, the great development of which, in man and in singing birds, constitutes musical talent.

A Curious Dream.—The following is a curious dream which happened to a friend of mine :—Mr S. dreamt that he was in his parlour with a friend, and that a piece of black cloth was lying upon the table, but which his friend happened to remark was flesh-colour. Hereupon arose a discussion as to the colour of the cloth, Mr S. maintaining that it was black, and his friend as strenuously insisting that it was flesh-colour. The dispute became warm, and Mr S. offered to bet that it was black; his friend offering also to bet that it was flesh-colour. Mr S. concluded the bet, when his friend immediately exclaimed, "And is not black the colour of more than half the human race?" thus completely stealing a march upon Mr S., and winning the bet. Mr S. declares, that the idea of black being entitled to the name of flesh-colour had never before occurred to him. The extraordinary part of this dream is, that two operations were going on at the same time in the mind of Mr S.,—the workings of each apparently quite concealed from the other. For instance, the part of the brain which personated himself had no knowledge whatever of the loop-hole which the part of the brain personating his friend had in reserve to close the argument. On the contrary, he says that he was utterly abashed by the remark, immediately thinking to himself how foolish he was not to have been in possession of the idea. A phrenological solution of the mental operation of this dream would probably be very interesting, for there certainly appears to have been two trains of argument carried on at the same time in the same brain, each not only unconscious of the other, but with an effectual barrier of concealment placed between the two.

Dinner of the Dublin Zoological Society.—On Tuesday May 2, the subscribers and friends of this truly interesting Society dined together in Morrison's Great Room. There were 150 noblemen and gentlemen present, and it was truly delightful to see the *élite* of our resident nobility and gentry, of various shades of political opinions, thus assembled round the festive board, casting aside for once the rancour of party, and acknowledging no

object but to do honour to the progress of science, and to contribute to the success of that society, the interests of which had that day brought together so distinguished an assemblage. Philip Crampton, Esq. Surgeon-General, who had just been elected President of the Society, was in the chair. Among the company we observed the Duke of Leinster, the Earl of Charlemont, Lord Muskerry, Lord Massareene, Baron de Robeck, the Bishop of Derry, the Bishop of Cork, General Sir John O'Vandeleur, K.C.B., Sir John Burke, Bart., Sir John Kennedy, Bart., Hon. Frederick Ponsonby, Judge Crampton, the Solicitor-General, Sir W. Hort, Dean of St Patrick's, Dean of Clogher, Hon. Messrs French, Right Hon. — Saurin, Colonel White, Mr Drummond, Under Secretary of State, Colonel Patrickson, E. St George, Esq., James Napier, Esq. Lougherea, Arthur Hume, — Armit, Hugh Barton, L. Crosthwaite, Acheson Lyle, Robert Shaw, Charles Hamilton, George Roe, — Cane, Esqrs., Doctors Dickinson, Chaplain to the Archbishop of Dublin, Carmichael, Jacob, Butter, Law, Croker, Evanson, Gregory, Carrol, Ireland, &c. &c. &c. After the usual toasts, and those of the Zoological Society, the University of Dublin, the Royal Irish Academy, the Royal College of Surgeons, the Geological Society, and the Horticultural Society had been proposed from the chair, and thanks returned, in appropriate speeches, by the representatives of these bodies, the President proposed "the Phrenological Society of Dublin." (Applause.) Dr Evanson, as a member of the Phrenological Society, rose to return thanks for the honour now done to that body. It was not surprising that he should be affected, in doing so, with deeper feelings than the speakers who had preceded him. They had appeared in the name of sciences which had outlived the obloquy with which all important truths had invariably been assailed when first introduced. He stood forth in the name of Phrenology, and having advocated that science through good report and through evil report, he trusted the day was at length dawning in which he should have to advocate it through good report alone. (Hear.) To this end nothing could contribute more by dispelling prejudice and rendering popular the science of Phrenology than the flattering notice taken of this science by so enlightened an assembly as that now met together. He was glad of the present opportunity to say a few words about the Phrenological Society. Many persons were apt to confound the progress of a science with that of a society which cultivated it. It was well known to many present that the Phrenological Society had, for a considerable period, held frequent meetings. These meetings were much sought after by the public; and were attended by several individuals, distinguished in various branches of science, and who, by a frequent repetition of their visits, at

once expressed their conviction that the study of Phrenology was neither frivolous nor dangerous, and paid a high compliment to the manner in which these meetings was conducted. (Hear, hear.) Now these meetings were not at present going on ; and hence many persons inquire, "What has become of the Phrenological Society? Where are the Phrenologists?" and some assert that when they ask, "Where are they?" Echo answers, "Where?" (Laughter.) But it was clear to him that these inquiries had met with a very stupid echo. Had they consulted the celebrated Irish echo, which, when addressed with "How do you do, Mr Echo?" promptly replied, "Pretty well, thank you, Mr Blake,"—(Hear and laughter)—they would have been told that the Phrenological Society, having performed their duty in promulgating the principles of their science, had rested awhile from their labours. In fact, they had taken a zoological fit, and were hibernating, although, it must be confessed, theirs was rather an Hibernian mode of doing so ; since they hibernated both winter and summer. But though they might be asleep they were not dead ; and whenever occasion required, would be found at their posts as active as ever. (Laughter.) Now for the science, which he rejoiced to say was making rapid progress all over the world. The connection between Zoology and Phrenology was more intimate than between any two sciences which had been named that evening. What, in fact, was the chief object of the zoologist? to study the whole animal kingdom ; and, in particular, by investigating the structure and habits of the lower animals, to acquire the means of classifying the whole. For this purpose, he examined the various parts of animals, but he (Dr E.) maintained that the part from which was to be derived the most important information was the brain. (Hear, hear.) Did we not find this an essential law of nature, that, in proportion as the animal rose in the scale of creation, it was distinguished by increased quantity and improved quality of brain ; and that, according as the structure and development of the brain were found to vary, so also did the instincts and intelligence of the animal vary? The time was approaching, and would certainly come, when the classification of animals would be founded on their cerebral structure. He had no intention of giving a lecture, but would beg leave to mention, for their information, a curious and important fact, equally interesting to the zoologist and to the phrenologist. There was a species of monkey (one of the Semnopithecæ, a genus or tribe allied to the Gibbous,) which, as is well known to zoologists, underwent, at a certain period of its life, a most remarkable change of habits and disposition. From being, in its youth, a most cheerful, playful, and engaging animal, it became, as it grew old, morose and vicious, and was, in fact, altogether changed. Now, what was the cause of

this? Had it altered in its external structure, in its hands, its feet, or any other part? No! What then was changed? Its brain. As the animal grew older, a diminution of the anterior and superior lobes took place, the bones of the cranium followed, and, in consequence, the integuments of the forehead became wrinkled, and the countenance, as well as the disposition, altered. (Hear). But he would tell them that it was not among the lower animals alone that such changes occurred. The fact he had stated came home to themselves. It was no longer doubtful that in man also, even at an advanced period of life, changes in the form of the brain, accompanied by corresponding changes of disposition, did occur; and the state of the brain at different periods would testify whether man had made good use of the gifts which he had received from his Creator, by cultivating his intellect, and giving to his moral feelings the pre-eminence which was so justly their due. (Loud cheering.) He would say to those who were fathers, "Go home, and when your children climb on your knee, look at them and remember, that it is in your power by the application of such important facts as these, in a great measure, to decide whether they shall be virtuous and happy in their future lives." (Hear, hear.) Dr Evanson then proceeded to eulogise the Zoological Society. It was certainly, as had been well stated by their President, one which gave evidence of an advanced stage of civilization. By studying the habits of the various animals in their collection, man was taught that these beautiful creatures were not created to gratify his lower propensities, but to afford a high and pure gratification to his better feelings and to his intellect: he learnt to use, not to abuse them. And this pleasure, he was glad to say, was not confined to the better educated classes, but was open to all, and might encourage even the most humble to enter on the study of nature, the only path to the discovery of scientific truth. By thus bringing men, and particularly the young, in contact with the beautiful works of nature, their moral sentiments were cultivated, the influence of their lower passions was diminished, and hence the Society powerfully contributed to the amelioration of the human species. (Hear, hear.) He recollected that, at the time the British Association visited Dublin in 1835, no institution had received a more flattering meed of approbation than the Zoological Society. (Hear, hear.) He was, therefore, justified in repeating that this Society was worthy of all support and encouragement.—Dr Evanson concluded by thanking the President for having included the Phrenological Society in the list of the scientific associates of the Zoological Society. The latter Society, by so doing, had done equal honour to the Phrenological Society and to themselves. (Dr Evanson sat down amidst loud and long continued applause.)

ARTICLE XVI.

SHORT NOTICES OF BOOKS.

- I. *The Reasonableness of Phrenology ; containing a sketch of the Origin, Progress, Principles, Proofs, and Tendencies, of that Science, &c.* By JOSHUA TOULMIN SMITH, Esq. of Lincoln's Inn. London. Effingham Wilson. P. 33.

THIS is the first of a series of lectures delivered by Mr Smith to three different audiences, and printed at the request of several friends. It contains a brief but comprehensive historical outline of the discovery and progress of Phrenology, a sketch of the principles on which it is founded, and a reply to the arguments urged against it. It is agreeably written, and calculated to interest and instruct readers who desire to know the nature, objects, and foundation, of Phrenology. We regard it as a valuable addition to the science.

On the Comparative Merits of Drs Gall and Spurzheim.

On one point we beg to enter our dissent from some observations of Mr Smith, contained in the work which we have just noticed. He says that the "full tribute of respect and gratitude which is so justly due to Dr Gall, as the discoverer and first propagator of Phrenology, has been hitherto withheld, and even the votaries of the science themselves have been slow to render due honour to their master's memory. It is with deep regret that I am compelled to add, that Dr Spurzheim himself, who became the assistant and coadjutor of Gall during one portion of his career, not, however, until after Dr Gall had, unassisted, laid the foundation whereon the whole superstructure has been raised, exhibits an unworthy jealousy of his master's reputation, and seems too eager to appropriate to himself the greater part of the credit due to the founder of the science." These are heavy charges, and, as Dr Spurzheim is in the grave, they should not have been made, unless accompanied by unequivocal proofs to substantiate their truth ; much less, in a mere introductory lecture, which in its own nature does not allow of the insertion of details, and which, besides, is intended to be read by individuals uninformed of the facts of the science, and who therefore cannot be supposed to be in possession of evidence sufficient to form a sound judgment for themselves. Mr Smith, in a note, excepts from his censure "the postscript to the third edition of Mr Combe's System, and some passages in the works of Drs Elliotson and A. Combe, and a few others, in which just allusion is made to the merits of the departed

philosopher." We do not know what Mr Smith may regard as a just tribute of respect to Dr Gall, but we always view that author as doing us the most ample justice who tells most fully and correctly what we have done for the science. Tried by this test, it is most incorrect to affirm that phrenologists have failed in gratitude to Dr Gall. In the preliminary dissertation to the Transactions of the Phrenological Society, read on the 14th of November 1822, Mr George Combe gives a succinct history of Dr Gall's life, of his discoveries of the functions of the brain, and of his efforts to diffuse the knowledge of the important truths which he had brought to light. The details regarding Dr Gall alone occupy ten pages of 8vo print, before Dr Spurzheim is introduced. These Transactions were published in 1824, and in a foot-note to this dissertation, it is mentioned, that "the facts of a private nature stated in it are derived from letters of Dr Spurzheim to the Society, or to the author of the article." In the earlier numbers of the Phrenological Journal, whole chapters of Dr Gall's large work on the functions of the brain are translated; and in vol. ii. p. 188, there is a critique, at considerable length, on the respective merits of Drs Gall and Spurzheim, in which, with all deference to Mr Smith, a higher tribute of respect is paid by us to that distinguished man, than any that has yet emanated from the pen of Mr Smith himself. We remark, that much as we are indebted to Dr Spurzheim, we look beyond him to the still greater genius of Dr Gall, and say,

"This man is the master of us all."

This article enters into a detailed examination of what each had done for the science, and assigns to each the honour which appeared to us to be due to him. We expect that after Mr Smith has read that article, he will not reiterate his charge.

Neither is Mr Smith correct in saying that it was only in the third edition of Mr Combe's System that he proclaimed the merits of Dr Gall. In the second edition (the first which assumed the name of a System,) he gave a history of the science, and of the discovery of each organ by Dr Gall, and also passed a high eulogium on his genius and merits. The "conclusion" to the second edition, in which this tribute appeared, is reprinted verbatim in all the subsequent editions of Mr Combe's work. It contains these words,—“Looking forward to the time when the real nature and ultimate effects of Dr Gall's discovery shall be fully recognised, I cannot entertain a doubt that posterity will manifest as eager a desire to render honour to his memory, as his contemporaries have shewn to treat himself with indignity and contempt.”

In Dr Spurzheim's Physiognomical System, published in

London in 1815, he says, "It is acknowledged that Dr Gall has the merit of having first begun these inquiries. He had pointed out many relations which exist between various ACTIONS of man and animals, and certain cerebral parts, before I was so happy as to become acquainted with him." He proceeds to mention his having been associated with Dr Gall, and that the latter spoke of their joint labours as "our inquiries." In treating of the organs in that work, Dr Spurzheim, in many instances, mentions the history of its discovery by Dr Gall; so that nothing appears to us to be more unjust to Dr Spurzheim, than to assert that he ever for a moment denied or shaded Dr Gall's great and paramount merit as the discoverer of the functions of the brain.

It is true that Drs Gall and Spurzheim differed on several points, and that Dr Gall wrote with hostility against Dr Spurzheim; but Dr Spurzheim said, in the presence of the writer of this notice, "I am too angry to answer Dr Gall at present; I shall wait for a year till my feelings of injury subside, and then I shall reply to him in coolness and with respect," and he did so; and whatever opinion may be formed of the merits of the controversy, we cannot discover in Dr Spurzheim any marks of "an unworthy jealousy of his master's reputation." In private, we heard him speak uniformly with the highest respect and admiration of Dr Gall, and at the dinner which was given to him by the Phrenological Society in Edinburgh, on 25th January 1828, he said, "My joy would be complete were Dr Gall amongst us. (Loud cheers.)" This does not look like jealousy of him whom the phrenologists of Edinburgh had previously described as "the master of us all." In short, we regret the diffusion of such charges, and protest against them, in the unsupported form in which they are here produced. We acknowledge that justice is entitled to be preferred above all other considerations; and if any phrenologist thinks that justice has not been done to Dr Gall, we invite him to come forward and defend his reputation in a complete and satisfactory manner, but deprecate such random assertions as Mr Smith has here inadvertently broached.

II. *Acquisitiveness, its Uses and Abuses.* By D. G. Goyder, Member of the Glasgow Phrenological Society. 1 vol. 12mo, pp. 144. Glasgow: John Reid. Edinburgh: Anderson. London: J. S. Hodgson.

SUCH is the title of a little work written in competition for the prize of a hundred guineas offered by Dr Conquest of London, for the best essay on the subject of Covetousness, and which was awarded to the work now so well known under the title of "Mammon" by the Rev. Mr Harris. It is said that

upwards of forty competitors took the field, and it has always struck us as a ludicrous incongruity that Dr Conquest should thus have applied a direct stimulus to the very propensity which he wished to repress; and also, that those who were themselves excited to the task by the hope of the reward, should be at the same time the expounders of the sins arising out of over-active Acquisitiveness.

The appearance of Mr Goyder's volume is another proof of the increasing diffusion of Phrenology among all classes of society. Both in France and in England, we see announcement of works every now and then, in which the science is treated as incontestibly true, and applied to its practical uses in the same quiet way as if no one had ever had a doubt about it. Knowing as we do the many ways in which Phrenology is daily and hourly gaining upon the public mind, we can foretell, without any claim to the character of prophets, that the number of such works will go on steadily increasing, till, by common consent, none hostile to the cause will be either received or listened to.

We need not enter into any analysis of the views expounded by Mr Goyder, as they are essentially those entertained by phrenologists in general. Some good observations and examples of the evils of over-active Acquisitiveness are interspersed through his pages. But their most remarkable feature, in a phrenological point of view, is three etchings by a youth of fourteen years of age, whom the author cites as a living proof of the truth of Phrenology, and which in conception, grouping, and expression, seems to us to present indications of a very high order of talent. The mere mechanical etching is nothing to boast of, but if the boy has *composed* as well as etched these scenes, we shall be greatly disappointed if he does not one day distinguish himself. At the same time, the writer makes no pretensions to connoisseurship, and expresses only his individual opinion. Mr Goyder should have a cast of the head taken, and give some account of the boy's talents and education. We should be glad to insert such a communication.

III. *Transactions of the Royal Society of London, article by Professor Tiedemann of Heidelberg on a comparison of the Negro and European Skulls.*

MANY of our readers are aware that, about eighteen months ago, Professor Tiedemann paid several long visits to the Phrenological Museum in this city, for the purpose chiefly of examining the large collection of national skulls which it contains. To ascertain the relative capacities of these skulls, he filled them with dried millet seed, and noted the weight of the quan-

tity which each contained. The result he assumed as a measure of the size of the cavity of the skull, and therefore as an index of the relative quantity of brain contained in it during life. Proceeding in this way, he found that the Negro skull is not inferior, in *general capacity*, to that of the European or Caucasian race, and hence he warmly insists that the common opinion which stigmatizes the Negro as incapable of the same high degree of civilization as the European, and which opinion, he says, rests almost exclusively on the supposed inferiority of the Negro organization, is calumnious, and *not true*. Reposing on his apparently incontrovertible facts, Tiedemann contends, that education and good treatment are alone wanting to raise the Negro to the European level, and that it is the height of injustice in us to plume ourselves on a superiority which is only accidental, and which may be wrested from us by a more generous treatment of our sable brethren.

With all due respect for Tiedemann, we must be allowed to say, that his paper in the Royal Society's Transactions is not worthy of his fame, either as a physiologist or as a philosopher, and that it is calculated not to advance, but decidedly to retard, the machine of science. Its facts may be all true and unassailable, but they are not complete, and, therefore, do not in reality warrant the inferences which he has deduced from them; while, from their apparent solidity, backed by his specious accuracy and deserved reputation, his conclusions will carry along with them many minds from which it will afterwards be difficult to have the errors uprooted. He makes no reference to Phrenology, and has made no attack on it; but he has omitted to notice both facts and principles, having a direct and most important bearing on the value of his researches, and, in this respect, we hold him as culpable. But neither time nor space will admit of our now entering into particulars, and we therefore content ourselves at present with stating, that the grand source of his errors is having taken it for granted, in his inquiry, that the brain *acts as a whole, and is a single organ*, subserving the whole mind, instead of being—as all physiologists admit, and himself among the number—a compound of different organs, each having a function of its own.

No doubt a very stupid man may have as large a brain (taken as a whole) as a clever man, but then we know from experience, that in the stupid man, the anterior lobes of the brain will be small, and the chief size lie in the posterior lobes; while the reverse will be the case in the clever man. Tiedemann, however, cares not in what region the cerebral size is to be found. It is enough for him that a given quantity of brain exists somewhere within the skull, and it would give too much countenance to Phrenology were he to make the requisite dis-

tion. On Tiedemann's principle, some of our atrocious and half idiotic murderers, with immense posterior and basilar regions, and small anterior lobes, ought to have been as distinguished for talent as Cuvier or himself, seeing that their brains weighed as many ounces as Cuvier's or his own. The phrenologist, however, would inquire farther, *in what region* of the brain the weight was to be found, before he adopted any conclusion as to their comparative intellectuality; whereas Tiedemann deliberately shuts himself out from any such means of rectification, by throwing all parts of the brain into one common heap, so that a negro, with an enormous cerebellum to compensate for his retreating forehead, ought on his principle to be as distinguished for talent as La Place or Bonaparte, the corresponding weight of whose brains lay in their anterior and middle lobes—an absurdity so glaring as to nullify almost all his conclusions.

IV. *Letters on Phrenology.* By John Slade, M.D. &c. 1 vol. 8vo, pp. 240. London: Longman & Co.; John Anderson jun. Edinburgh.

THE object of the volume before us is "to embody the principles of Phrenology, and to shew by a process of reasoning, that the science has its foundation in nature," and this Dr Slade attempts "from a conviction that the public mind would concede with greater willingness to the facts adduced by the phrenologist, were it persuaded that the principles upon which he proceeds are inductive and true." With this laudable view, our author first treats of "the origin of Phrenology," and, in eleven subsequent letters, discusses the connection between the brain and mind; the theories of preceding philosophers; the fibrous structure of the brain and its double nature; the primitive faculties of the mind as discovered by Phrenology; the consistency of these with nature; the questions of fatalism and national character; the lights to be drawn from comparative Phrenology, and lastly the influence of size upon the functions of the brain. An appendix is subjoined on "the improveable condition of man considered in relation to his moral responsibility."

The shortness of time between the receipt of Dr Slade's volume and the publication of the present number of the Journal, prevents us from expressing any opinion in regard to its merits; but we are anxious to make its appearance known to our readers as early as possible, and therefore prefer giving a brief statement of its contents now, to waiting to notice it at greater length in a subsequent number. We are the more prompted to this course, because it is essentially an elementary work, and, so far as we can judge from looking through it, contains no new

facts or doctrine ; but rather aims at placing what is known in a different point of view. If, on further examination, we shall find any thing requiring a lengthened notice, we shall return to its consideration.

In the account given by the author, of the origin of Phrenology, we observe one or two inaccuracies, which may be corrected in future editions. He speaks of Gall "having first visited England, where he met with many opponents to his doctrine," and then repaired to France, and taking up his residence at Paris in 1807. This is a mistake. Gall never visited England till about two years before his death in 1828. The impression left on our minds by the author's account of the discovery of Phrenology is, not that its principles evolved themselves almost piecemeal from an extended observation of facts, which was the case ; but that a few casual observations led Dr Gall to see the fallacy of other systems, and to educe a new one, which he afterwards confirmed by observations made purposely with that view. We do not say that Dr Slade means to convey this meaning, but we think most of his readers will receive this impression. Indeed, from Dr Slade stating that "Phrenology is by no means a modern doctrine," and treating of Camper's and Cuvier's modes of inquiry, as if they were also phrenological, the reader will be apt to suppose that Dr Gall merely followed in their footsteps, and perfected what they had begun. Whereas, it is well known that his method of investigation is entirely original, and was suggested, not by the study of previous systems, but by facts accidentally observed, exciting a mind of uncommon power and penetration to a new line of inquiry, undismayed by the absence of all countenance and assistance from either preceding or contemporary authorities.

MISCELLANEOUS NOTICES.

BATH.—Mr Simpson is lecturing on education here when we go to press, with much success.

BRISTOL.—Mr Simpson delivered a course of lectures on education here in April, which excited great interest ; and he is now lecturing to a large audience in Bath. We are glad to observe that the *Edinburgh Review*, No. 131, recognizes the merits of Mr Simpson's exertions in the cause of education, and does justice to his attainments.

EDINBURGH.—Mr George Combe concluded his course of lectures on Phrenology, in the Argyle Square Medical School, at the end of March, when thanks were returned to him by the class for the instruction they had received.

Mr W. B. Hodgson concluded his course of twenty-four lectures on Phrenology, delivered in the Free-Masons' Hall, to the Association of the Work-

ing Classes for their Moral and Social Improvement, on Tuesday 10th May, when he was presented with a complete copy of the *Phrenological Journal*, handsomely bound, and Vimont's "*Traité de Phrenologie*," as a token of the respect and gratitude of his audience, and their conviction of the truth and importance of Phrenology. The lectures have throughout been listened to with great attention by considerable numbers.

MANCHESTER.—On 10th April, Mr George Combe commenced a course of lectures on Phrenology, in the New Corn Exchange, a room 61 feet by 63, and well calculated for transmitting sound. The lectures were continued on four evenings of the week, till 4th May. The number of tickets issued for the course was 470, and 1207 visitors were admitted, being, on an average, 86 every evening. The lectures excited great interest, and Mr Combe reports that he met with the warmest reception from the phrenologists of Manchester, whom he found to be well instructed in the science, and most zealous for its diffusion, and to whose exertions he was greatly indebted for the success of the course. He also experienced the greatest kindness from the inhabitants in general. He reports that Mr William Bally's collection of casts, which was gratuitously placed at his service by its owner, is extensive and valuable; and that Mr Bally is one of the most devoted cultivators of the science whom he has met with. He gave an extra lecture on education for the benefit of Mr Bally, which was attended by about 700 persons, all of whom paid for admission, and thus raised a handsome sum for Mr Bally.

Mr George Combe left Edinburgh on 20th May, on a tour through Northern Germany, and to Vienna.

PHRENOLOGICAL SOCIETY.—At the meeting of this Society, held in Clyde Street Hall on the 3d April 1837, Mr William Robson Scott of the Institution for the Deaf and Dumb, Doncaster, was elected a corresponding member, Dr Abram Cox was appointed Conservator of the Museum, and Dr James Cox Secretary to the Society, in place of Mr Robert Cox and Dr William Gregory, who have left Edinburgh. The thanks of the Society were voted to Mons. G. M. Schwartz of Stockholm, for a donation of Esquimaux and Icelandic skulls; to Mr W. R. Scott, for a donation of the cast of the skull of a New Zealander, and the mask of a deaf and dumb boy, remarkable for a talent for drawing and construction; and to George Leach, Esq. of Stoke, for the valuable collection of his brother, the late Dr Leach, of the British Museum.

STAR IN THE EAST, OR WISBECH AND EAST OF ENGLAND GAZETTE AND ADVERTISER, SATURDAY APRIL 15. 1837.—MECHANICS' INSTITUTION.—On Tuesday evening Mr Craig delivered his third lecture to the members of this Institution, on Phrenology. He deprecated the custom of confining children so many hours within the walls of a school-room, at the expense of their physical and moral feelings. He described the influence of *Self-Love*, and the desire of *Approbation*, in forming the character, &c. The fourth lecture on the subject will be delivered on Tuesday next.—On Tuesday evening last Mr Craig delivered his fourth lecture to the members of the Mechanics' Institution, on Phrenology, and described the situations, functions, &c. of the faculties called by phrenologists the organs of *Benevolence*, *Veneration*, *Firmness*, and *Conscientiousness*. In speaking of the manner in which education is generally conducted, he said, the moral sentiments are wholly neglected, though their proper training and development ministers most to the happiness of the individual. Nor is it in the power of teachers in our ordinary schools to cultivate the moral feelings as they ought; and, indeed, their object is merely to instruct the intellect. The play-ground was the best scene for regulating the feelings, yet the amusements of youth are wholly neglected as unworthy of notice. The results are fatal to society. Speaking of the religious sentiments, Mr Craig shewed how it was possible for a person to be very pious, and yet very wicked; and that a great improvement would

be effected amongst mankind, if those who are paid for teaching mere matters of opinion, were to instruct their congregations in real facts, and open their doors, and teach those who are desirous of acquiring a knowledge of nature, under all its various and delightful appearances. He adverted to the present inconsistent attempts at legislation to check the progress of crime, by seizing the unfortunate felon, and immuring him in prison, and then turning him out upon the world, without having in the least exercised his better feelings; whilst, in all probability, the disgrace he has experienced has only added force to his predisposing propensities to seek his own mere animal gratifications, at the cost of others. The fifth lecture will be delivered on Tuesday next, on the Imaginative faculties. The *Star in the East* has lately published several bold and sensible articles on the application of Phrenology as a system of mental philosophy.

WEBB STREET MEDICAL SCHOOL, LONDON.—“Mr Grainger has lately delivered at this school an admirable series of lectures upon the brain and spinal chord, according to the physiological system of Gall and Spurzheim. The course was listened to with the greatest attention by a numerous class.”—*British Annals of Medicine*, 7th April 1837. This is another instance, in addition to Mr Solly, of one of our best anatomical teachers adopting the discoveries which twenty years ago the Edinburgh Review disgraced itself by stigmatizing as “trash” and “trumpery.”

THE EDINBURGH MEDICAL AND SURGICAL JOURNAL.—In our 50th number we published a report of the case of Mr N., in which we charged Mr Craig, the reporter of the same case in the Edinburgh Medical and Surgical Journal, with the omission of highly important facts, and presented evidence of his omissions; we also charged Dr Craigie, the commentator on Mr Craig's report, with having betrayed evident hostility to Phrenology, and done injustice to phrenologists, in the use which he made of the mutilated facts presented to him by Mr Craig. Two numbers of the Edin. Med. and Surg. Journal have appeared since our report was published, and they have not contained one word on the subject of the case of Mr N. No attempt is made to defend the accuracy of Mr Craig's representation of it, or to controvert the evidence which we produced of its deficiencies; but neither is there any acknowledgment of its imperfections, nor any correction of the inferences drawn from it by Dr Craigie, which are demonstrably false, if, as we have proved, the basis on which they rest is unsound. We may add, that Mr Craig has made no communication to Mr Combe or to us privately on the subject; and that, if he had, we could have doubled the evidence of the inaccuracy of his statements regarding there being no change in the temper of Mr N. simultaneously with his loss of the use of words. We conceive ourselves at liberty, therefore, to hold Mr Craig and Dr Craigie as confessed in regard to the truth of the charges which we brought against them, and we leave the public to judge of the spirit which prompts them to withhold all acknowledgment of their errors. The cause of Phrenology is probably as much served by their silence, which is most instructive, as it would be by their candid admission of mistake.

The late Dr Leach of the British Museum, left his entire collection of skulls to the Phrenological Society, and they have just been presented by George Leach, Esq. of Stoke, near Devonport, his brother, and form a very valuable addition to the Society's Museum.

We have exceeded our limits in the present number by a sheet and a half, and still have many communications which we have been unable to insert. Among these are the “Philoprogenitiveness of the Cat,” the “Case of Robert Laughland,” &c. which shall appear in our next.

EDINBURGH, 26th May 1837.

THE
PHRENOLOGICAL JOURNAL.

No. LIII.

ARTICLE I.

WILL.*

AMONG the great elements, or first principles, whose action is productive of all the phenomena of life, the Will, from its importance, may be justly considered as pre-eminent. It is the immediate author of all individual and national action. All the archives of history are nothing but a continuous record of human volitions, carried out into successful or unsuccessful action. All the achievements of our race in rescuing our world from barrenness and desolation, are owing to the strength of effort, and the power of Will. Of all the countless myriads who have come and gone, and whose names have long since become as undistinguishable as their dust, there is not one, in the possession of ordinary powers and faculties, whose life has been any thing more than a record of his volitions.

The vast importance of this great element of life is evidenced by its distinct recognition in the law of every civilized country. A contract is nothing more than the point of union between two or more distinct and independent wills. It is the concurrence of two or more wills in the same matter.

The validity of a contract is dependent upon freedom of

* This valuable communication comes from the other side of the Atlantic. It is the production of the truly philosophical and correctly phrenological mind of Mr A. Dean of Albany, New York. It is well worthy attentive—very attentive—perusal, by the student of Phrenology, as exhibiting a particularly clear practical view, attractively and eloquently detailed and illustrated, of the nature and operation of the mental faculties; and not less by the advanced phrenologist, as containing some very original and striking speculations on that mysterious influence called the Will, for which some phrenologists have desiderated a special faculty. This the author holds to be an absurdity. We give no opinion on Mr Dean's theory, and still less upon the consequences deduced by him. We only lay his views before the phrenological world, and call their particular attention to them. The perusal of the paper gave ourselves very great pleasure. We also recommend a comparison of Mr Dean's speculation with the theory of M. Broussais on the Will, as communicated in our previous Number, page 560 of this volume.—EDITOR.

will. Any undue restraint imposed by one party upon another, at the time of making an alleged agreement, voids it in regard to the party improperly influenced. He had not, at the time, one of the essentials of a contracting party,—a freedom of will,—a perfect ability to acquiesce or to refuse his assent to any proposition.

Freedom of will is also necessary to render an individual-accountable to the law of the land. The most flagrant violations of social order, the commission of the most outrageous crimes, can never call down upon the head of the lunatic or insane any visitations from violated law. No matter what amount of injury has been done, what extent of human life has been wasted, if the agent of all this evil be a lunatic, or idiotic, or insane; the distresses produced may be mourned as misfortunes, but they cannot be punished as crimes. The great and necessary element of all crime is wanting,—a freedom of will,—an ability to have done otherwise.

On freedom of will is also based all human accountability to the Supreme Being. A mere machine, whose every motion is controlled by the application of external forces, can never be accountable for its movements. That which can never go wrong ought never to have the credit of going right, and ought, therefore, never to be rewarded. Neither should that be punished which could not have been otherwise. Punishment can only be consistent with the power of avoiding; and reward with that of transgressing; a power too lofty, too awful, and too much fraught with the elements of moral grandeur, to be bestowed upon orders of being inferior to man. They can never sin. There is a tremendous greatness in the very power of erring. It is a power incidental only to a high moral nature. Man in his lowest depths of sin, degradation, and infamy, is an object of pity; it may be of reproach, but never of contempt. Whether humanity elevated proclaims the height to which it can rise, or degraded the depth to which it can fall, it is still entitled to the respect of all endowed with a moral nature; it is still spreading before the eye of intelligence a nature brightly beautiful or darkly dreadful; and, whether it be the one or the other, depending upon itself, the free energies of its own will. That man is a free agent, the very existence of evil affords sufficient evidence. Where would be the necessity of evil in a scheme of creation cast by Infinite Wisdom, Power, and Goodness, where all were mere machines, and incapable of acting otherwise than they do act? Evil could no more have a place in such a scheme than in the Being of the Creator. The existence of evil in a scheme of creation so devised and executed is only explainable in one way, and that is, that it is necessarily incidental to the free agency of man.

There may be as great a moral impossibility in endowing human nature with a freedom of action, and yet of excluding the occurrence of evil, as there is a physical impossibility in creating two mountains without at the same time creating a valley between them. An impossibility is insurmountable when it necessarily grows out of the nature of the thing itself.

Is it of importance to become intimately acquainted with this great agent of all good and evil ; this prime mover of all action ; this foundation of all accountability ? Is it material to investigate the elements that compose it ; the laws that regulate its action ; the great principles that preside over its manifestations ? Surely that which controls the movements of the organization with which it is connected ; that in which we are to seek and find the identical *I* that acts, and enjoys, and suffers ; that, to influence which, all the machinery of earth, and all the loveliness of heaven, and all the horrors of the infernal world are brought forward in terrible array ; that which dungeons cannot control, nor scaffolds terrify into submission, nor inquisitions torture into acquiescence ; that which freely bestows the gift of affection, or withholds it from all the entreaties, and all the assiduities, and all the persuasives that can, by any possibility, be addressed to a sensitive nature ; that which is the soul of every action, and the principle upon which all accountability is founded, is well worthy all the attention which a rational mind is competent to bestow upon that which certainly embraces its own highest, I may also add its supreme, interest.

The will seems to have been, by many, considered not as originating from the mind, nor as forming a part of it, but as introduced into it. They regard it as a separate, independent agent, finding its appropriate employment in the coining of decisions or determinations, which the mind and material organization, as its sub-agents, are never better occupied than in carrying into effect. They speak of the *self-determining* power of the will—a power which can be exercised in no other way than by an act of the will. The exercise of such a power in a created being, involves two contradictions. The one is the assumption that an effect can be produced without a cause, and the other is, that every act of volition must be preceded by an act of volition—a palpable absurdity. They also vest in the will the power of recalling past ideas ; an error which I am fearful is not wholly confined to the old school of metaphysicians. The will clearly never can possess such a power. If the different faculties cannot recall their previous perceptions, the will has no power to do it. If they are recalled, they are present to the mind, and the agency of the will cannot be required.

If the will be an agent introduced, and gifted with the extraordinary power, not merely of controlling mind and matter, but also itself; it certainly would become important to inquire into the manner of its introduction; into the essentials of its composition; into the principles on which its decisions are founded; and into the authority by which it claims to exercise such illimitable sway over the powers of mind and body, with which its only tie of connexion would seem to be that of command on the one side, and of obedience on the other. All this, however, is an error. The will is not a tyrant merely introduced into the mind to control; it is no more separate from, or independent of the mind, than are the mental operations of perception, conception, or memory. It is a legitimate result of the action of all those faculties, Perceptive, Reflective, and Affective, that compose the entire mind, and hence its origin, elements, and principles, are all to be sought in that great concentration of all feelings and of all thought.

Entertaining this view of the origin and nature of the will, I define it to be—THE DECISION OF THE WHOLE MIND ON THE WHOLE MATTER. It is,

1. The *Decision*. This is the result immediately consequent upon debate and controversy. In the inquiry we shall subsequently make into the peculiar manner in which volitions originate, we shall have occasion to remark upon the conflicts among the motives and primitive faculties of mind, that immediately precede their existence. All the varied elements of conflict are hushed into silence when the decision is made. With that commence the phenomena of will. It is, however, the decision

2. Of the *Whole Mind*, not of a fractional part merely. The whole mind is composed of numerous distinct and independent faculties, intellectual and affective. Each one of these in its active state possesses, not a *will*, but a *wish* or *desire* of its own. This wish or desire is nothing more than the action of the faculty in accordance with its prescribed function. The propensity of adhesiveness, for instance, never desires to combat, or acquire, or destroy. In the strong bonds of attachment are centered its every wish, desire, and energy. In this manner each primitive faculty desires its own gratification in its own specific mode of action. But these wishes or desires, however strong the influence they may exert, cannot all be gratified at the same time, or by the same act, because they often conflict with each other. The propensity of Combativeness, for instance, on the receipt of an injury, desires immediate conflict with the aggressor; and urges all the energies of the system to wreak on his devoted head the fierce stores of wrath and vengeance. But is this always done? No; and why? Because there are

other claims to be interposed, other advocates to be heard, other desires to be gratified. The sentiment of Cautiousness interferes, and, with the rapidity of a thought, says, *Take care*, you may fail in giving, you may yourself receive a death-blow, or you cannot escape the injurious consequences of your own act. The sentiment of Self-esteem interferes, and in its own peculiar language says, Descend not from your lofty station, degrade not the dignified nature you possess by any approximation towards the brute in action. The sentiment of Approbation interferes, and requires forbearance, because an enlightened and moral people cannot bestow upon the mere act of combat the smile of their approval. The sentiment of Conscientiousness interferes, and awakes the hitherto slumbering elements of his moral nature. It demands an observance of the strict rule of right; and requires redress of injury to be sought by an appeal to the peaceful forms of law, rather than the dread arbitrement of ruffian violence. The sentiment of Benevolence interferes, and excites for the frailties of the offender the heavenly emotions of pity and compassion. If energetic in its action, the angry and turbulent waves of boisterous passion below are soon smoothed into placid serenity by the oil of mercy from above. Thus after every claim has been interposed, and every advocate heard, the act originally prompted by the propensity of Combativeness is either done or omitted, and in that doing or omission we find the decision of the *whole mind*. But that decision is

3. On the *Whole Matter*, not on a *part* simply. The whole mind settles not all the conflicting claims interposed by its different faculties, until the intellect has been stimulated to a degree of action proportionate to the strength of the affective faculties that are then active. The great bearings of the whole matter are thus investigated, and an intellectual result arrived at, the correctness of which will be in proportion to the stimulus furnished by the affective faculties, and the power and activity of the intellectual. A particular speculation is proposed. The propensity of Acquisitiveness prompts to embark in it for the sake of gain; Self-esteem desires the possession for the purpose of the power conferred; Love of Approbation, as affording the means of making a gorgeous display; Conscientiousness desires it for the purpose of discharging its obligations, and Benevolence to relieve the wants of the wretched; the sentiment of Hope lends its cheering influence to the other faculties, while that of Cautiousness suggests its doubts, and sends into the council-chamber its fears. With the view of satisfying, as far as possible, all these clamorous desires, and of giving the preponderance to Hope or Cautiousness, the probable result of the proposed speculation is sought to be ascertained. Accord-

ingly, the Perceptive faculties are required to contribute to the common stock all the facts they can collect in regard to it; Comparison is drawn upon to finish the results arrived at, by comparing all these facts with each other, and also the speculation proposed with others similar in their nature and circumstances; Causality is commissioned to investigate the long train of causes and effects, to trace consequences and results, and from all its numerous sources, embracing all conditions of necessary dependence, to deduce conclusions in reference to the proposed speculations. The probabilities in favour of a result successful or unsuccessful, are, in this manner, determined by the Intellect. They receive the sanction of the judgment; but after the judgment has thrown its strong guarantee over the probabilities of success, it is not always that the man acts with the view of obtaining the results. The sentiment of Cautiousness may far exceed in strength that of Hope, and the one chance in ten of a failure may exert a greater influence than the nine chances of success. There are individuals gifted with excellent intellectual faculties, who are unwilling to do any act subject to a contingency. This is not because their judgment always determines in favour of the probabilities of a failure. It is because their *entire* mind cannot decide upon acting where there is a chance of failing in the general object. We here recognise the difference between judgment and will. The one determines probabilities, the other decides upon actions. The one is the operation of the reflecting powers slightly modified by the influence of the propensities and sentiments, the other the decision of the whole mind upon the whole matter.

Most of the every-day actions of life are not preceded by all this complicated operation of mind. They have been rendered habitual by the constant recurrence of the occasions contributing to their production. Those actions, like the rapid movements of the fingers of the musician, are performed either without being preceded by all those mental processes that result in volition, or the processes are carried on with such rapidity that distinct impressions of each cannot be acquired and retained by consciousness. There is a continuous circle, a great beaten highway of movement, in which the never-ceasing recurrence of the same causes and occasions is constantly producing the same kind of actions. The great currents of conduct in the moral world, could we but see them in their whole extent, would appear as regular and as uniform as the majestic movements of our rivers, or those of the heavenly bodies around their centres. We occasionally see in the one, striking deviations, great moral convulsions, agents at work developing new resources; and so we find in the other, the innovations of the earthquake, the mountain cataract, and the comet's eccentricities. Those de-

viations, however, are seldom necessary, and, excepting their occurrence, the great masses of human actions have been the result of causes that have presided over the movements of the moral world with as regular an uniformity as the centripetal and centrifugal forces have governed those of the physical. The occasions are not necessarily of frequent occurrence with any of us, that require the soul to retire within that secret theatre of operations where none but itself and its God can enter; to rely upon its own unaided strength and energies, to disencumber itself of the chains of habit, to divest itself of all influences purely extrinsic, except those arising from the very nature of things, and, standing erect in the majesty of its own primitive powers, to decide and act upon its own responsibility, and by virtue of its own original constitution. Such occasions often form particular eras in the history of a life. They are full of doom, are the point upon which destiny turns, and send their influences, wrapt in gloom or glory, far on to the tract of the future. These occasions are either special or general; they are special, when a single affective faculty or set of faculties furnishes a powerful stimulus to the whole mind, as when, for example, the propensity of Acquisitiveness prompts the whole mind to labour for the acquisition of wealth. They are general, when they are of such a nature as to occur to all possessed of ordinary powers and faculties, such, for instance, as the choice of a particular profession or calling in life; the decision, if we feel ourselves called upon to make it, what we will pursue as the great and primary object of a life, whether wealth, or pleasure, or domestic quiet, or the higher walks of fame, or the happiness of heaven.

Will, consisting in the decision of the whole mind upon the whole matter, arises generally out of the conflict of the primitive powers and faculties with each other. In this conflict we are to seek for the nature of the peculiarities, and essentials, composing the will. The propensities and lower sentiments of one individual mind are ever hostile to those of every other. They appertain to self, and are, therefore, exclusive in their nature and action. Acquisitiveness, for instance, would appropriate to itself all the property of the world. Approbation would, in like manner, desire for its possessor all the praise and honour of the world. It would be the object of all thought, the subject of all praise, the centre of all approbation. In a rival it would find an enemy, and that enemy would be the object for Secretiveness to entrap, for Combaticiveness to overcome, for Destructiveness to destroy. A strong sentiment of Self-esteem would reserve to its possessor all power and energy, and would grant to the pretensions of every other nothing but its sovereign contempt, that being the highest award it is ever capable of mak-

ing. It is the utter selfishness and exclusiveness in the action of these propensities and lower sentiments that leads to all the conflicts that occur in society.

There are, however, primitive powers and faculties in our nature that are never in conflict. The higher sentiments in one individual never conflict with their operation in others. Conscientiousness is alone satisfied when the great rule of right is applied equally to all, regardless of all differences in the conditions of men. Veneration is most active and delighted when the shrine at which it worships is surrounded by countless throngs of humble adorers. Benevolence is the most expansive and powerful, when all the energies of the world are directed to the relief of all its afflictions. These high sentiments are never satisfied with their exertions. When strong, it is in their nature never to rest contented while there is a wrong to be redressed, or a right to be restored, or an affliction to be alleviated, or good to be done, or evil to be avoided. There is in them no exclusiveness of appropriation, no contracted selfishness, no narrow jealousy of the superior excellence of others. There exists between them everywhere, and on all occasions, a high and holy friendship and sympathy, an entire harmony of feeling and of action. It is in their powerful and concentrated action, in conjunction with that of the intellectual faculties, that we shall find the bond that unites the moral elements of the world.

The intellectual faculties in different individuals never conflict. Each acts on its destined objects by virtue of its own peculiar constitution. Their special functions are uninfluenced by human volitions. They may be possessed in different degrees of strength, but that can only result in proportional differences in the accuracy with which they act. Their functional action, as well as the general modes to which that action is subject, are the same in all men. A fact strongly confirmatory of this is, the unwavering reliance we place upon the recorded wisdom of past ages. We adopt the experience of mankind as our own experience, and in this manner give to the knowledge and wisdom of the world a progressive character. The faith we place in these records of the past, the fidelity with which we listen to the voices of wisdom and of warning that are sent down from former times, the confidence we repose in the unbroken experience of the world, are instructive in their nature. They are that which we never were reasoned into, and never can be reasoned out of. It is true the intellect is the great instrument of conflict. But it is equally true that, in such case, it is a mere agent; that the results of its functional action, the facts, premises, and conclusions it has accumulated, are wielded

by the affective faculties acting in accordance with their own prescribed functions.

We have now considered the conflicting and harmonious action of our different elementary faculties as they exist and act in different individuals. From that action arises national will. The manner of its ascertainment is prescribed by the constitution or fundamental law of each nation. In general the legislative bodies and judicial tribunals are the organs of its announcement, and the executive functionaries the instruments by which it is carried into effect. It improves as the general mind advances in all its different departments. The sanguinary laws of Draco spoke the language of that mind at a period when the propensities gave the law to the higher sentiments. The laws which in enlightened Europe and America now regulate the mutual relations between man and man (leaving him in the free exercise of his own volitions in regard to his high and holy relations) arise from the impulses of the propensities directed and governed by the dictates of his higher nature enlightened by intellect. Laws have, in all ages, been the guards which experience, reason, and feeling have suggested as best calculated to restrain the conflicts of the lower propensities in general society. The highest possible sanction* by which their performance could be enforced was at first derived from the lower sentiments of Self-esteem, Approbativeness, and Cautiousness. As man has improved, that sanction has been found advancing from these to Conscientiousness, and from that to Benevolence.

We have still to consider the operation of the principle of conflict among the different powers and faculties composing the same mind. The knowledge of this ought to be derivable from our own consciousness, but a difficulty arises from our imperfect analysis of our own thoughts and feelings. We know ourselves better in results than in details. Of our volitions we have a much clearer knowledge than of the manner of their production. There is also another difficulty, that of passing any judgment upon others different from that which we should, under the same circumstances, award to ourselves. No difficulties, however, should deter us from retiring within the recesses of our own minds; from inquiring into the tendencies of the powers and faculties that compose them; from examining there the operation of this great principle, and from endeavouring to investigate, unfold, and explain, the operation of that complicated machinery that sends forth our volitions warm from their new creation, and ready to stamp on the world about them the impress of their action.

There are but few of our primitive faculties whose functions

* By sanction is here meant the penalty inflicted for violating any law, or rather the manner in which the infliction of that penalty affects the individual.

necessarily conflict with each other. The functions of Self-Esteem and Reverence appear, however, to be constructed upon that principle. The one regards its possessor as capable of exercising all possible power; the other, when strong, concedes to others all imaginable superiority. The reliance on self, therefore, will always be proportionate to the strength of the one and the weakness of the other. So also Destructiveness and Benevolence may at first be thought to conflict in their functional action, but they unite and harmonise in the destruction of inanimate objects.

The propensities can neither be said to conflict nor harmonise with each other in their action. They each give separate, distinct, and independent impulses, peculiar tendencies to act in a certain manner. The impulse to contend, to destroy, to acquire, to secrete, together with every other, impels in a specific direction; and if undirected, and acting singly, would as certainly carry the entire organization in that direction as water is certain to rush down a declivity. But these impulses all impel in different directions. The actions by which they are manifested, and the results to which they lead, are all different. There is in their action no direct harmony or discord. If their functional action harmonised they might unite, and accomplish by a terrific union what could never be expected from separate endeavour. If it conflicted, their contention might be of too severe a character for the nature of mind to endure; and hence their proper direction and legitimate action were not left to be ascertained either by a concert or a contest among themselves, but to result from the direction of the higher sentiments enlightened by intellect. The operations of mind resulting in volitions, arise chiefly from the impulses to act furnished by the propensities and lower sentiments, and the agency of the higher sentiments and intellect in directing and modifying those impulses. The proper understanding of both should enable us to trace actions to their source; contemplate them in their origin, and view results and consequences in the action of their causes.

The actions of men are said to result from motives, and these are understood to influence the will. This is true, provided we entertain a correct apprehension of the nature of motives. They are the appeals made by things external, through the medium of the intellectual, to the affective faculties, and the responses made to those appeals. The fact, for instance, that the goods of this world exist, is rendered clear by the action of the intellectual faculties. Upon the premises thus furnished Acquisitiveness acts, and furnishes the impulse to obtain the possession. That possession is termed the motive. It is the reason for the act by which the possession is obtained.

All motives are in many respects alike. They all derive their force from some supposed good to be obtained, or evil to be avoided. That good or evil, however, is the one or the other so far only as the affective faculties of the individual are, in their nature, and as modified by each other, calculated so to consider them. While some find their greatest possible good in relieving distress, others derive a kind of gratification from creating it. The great diversity observable in human actions depends on the different things in which the qualities of good and evil are recognised by different individuals. All motives, in reference to the individual, may be considered as good, because the great secret of their influence is an anticipated good, and that, too, whether the act exerted in its attainment be of good or evil tendency. One, for instance, acquires a certain sum of money by his honest industry, another the same amount by stealing it from his neighbour. The motive may in both cases be the same, viz., the acquisition of the money. Or, to make the case still stronger, we may, in the last instance, suppose another motive, viz. that his object in stealing is not so much to enrich himself as to impoverish his neighbour, towards whom he bears a special enmity. The principle is still unaltered. He is still seeking a supposed good. The only difference is a transfer of that good from the pleasure of the acquisition to the injury inflicted, thus gratifying his Combativeness and Destructiveness to a greater extent than his Acquisitiveness. Slander of individual character may arise from the same motive that prompts to the performance of the most praiseworthy actions, viz. the desire of excellence, superiority, and distinction; a desire that can be accomplished either by the elevation of self or the depression of others. Motives are as different from each other as are the affective faculties in the action of which they essentially consist. Their equality in goodness, as regards the individual, must not, therefore, render them equal in dignity, or in the general estimate of their value which enlightened reason would put upon them. Neither must we assume that because all motives, as regards the individual, are good, that therefore all the actions to which they prompt are equally so. The possession of wealth is a good motive, in itself considered, but the commission of larceny is a bad action. Neither do I assert that all motives are good except as they regard the individual. Those that prompt to the gratuitous infliction of injury, can never receive the sanction of man's higher nature. It is not alone, therefore, the action for which man is accountable, but also the motive which he allows to influence the action. The act, as we have already seen, may result from motives entirely different in their character. The stealing to acquire, and the stealing to impoverish, are very different in

motive, but the same in act. So also the slander to depress and the slander to injure.

The motives addressed to the propensities and lower sentiments, and the impulses and actions consequent upon them, when uninfluenced by the promptings of a higher nature, are in their extremes productive of positive vice. Those propensities and lower sentiments were charged by their Creator with the important mission of resisting, overcoming, and destroying, all the obstacles in the way of man's progressive movement in the higher walks of thought, and feeling. Their guides, guardians, and directors, are found in the feelings, emotions, and authoritative dictates of the higher sentiments, enlightened by intellect.

The importance of the subject will perhaps justify an illustration, at some length, of the manner in which volitions occur. Suppose an individual acting strongly under the impulse of Acquisitiveness; in the absence of all or a sufficient modifying power, the motive addressed to that single propensity would be sufficient; in that alone would centre all the energy and power of will, and the thing of value desired would be possessed, whatever were the means of acquiring it. The act of larceny or robbery possesses him of the wished-for object. To the commission of such an act, however, for such a purpose, there are many counteracting influences. If Conscientiousness possess any degree of strength, it interposes a strong barrier in the strict adherence it requires to the rigid rule of right. It throws over the property, person, and liberty of others, the protecting mantle of the moral sanction. Were it sufficiently strong, all human legislation in regard to matters of right would be superseded as useless. But man's moral nature has been comparatively but little cultivated. In the vast majority of instances, it alone is not sufficient to resist, or control, or direct, the strong impulse of the propensity. If the sentiment of Cautiousness exist in sufficient strength, it may furnish a powerful motive to forbear. Its practical language is, *Take care*. Will not some injury result from the act? Shall I not incur the penalty of a violated law? The perceptive and knowing faculties acquaint themselves with the law, its penalty, and the consequences of its violation. Here their agency terminates. But the punishment, so far as human laws are concerned, is dependent on detection and conviction. Of this there is no certainty, and the chances of escape are therefore to be determined. The reflective faculties are here appealed to for the purpose of weighing probabilities, and of subjecting the chances both of escape and detection to the rigid decision of the judgment. The conclusion it forms is the property of the whole mind. Around it Cautiousness encircles its fears, and

Hope weaves it specious illusions. The intellect, merely, never controls, directs or influences. It only enlightens. It informs of facts, causes, and consequences. It calculates, weighs, compares, judges; and all its results, as affecting the individual or others, are *felt* by the sentiments. Among other sentiments that bring forward their special contributions to the common stock is Approbativeness. This inquires, what are the opinions of men, in reference to the proposed action? The perceptive and knowing faculties furnish the information required. The reflective again judge of the probabilities of escape or detection. If those of detection are judged to predominate, this sentiment inclines to avoid the act, as the performance of it must expose the individual to the terrors of the popular sanction. But,

The sentiment of Self-Esteem may predominate. The feeling it inspires is independent of Hope or Fear. It asks no results of intellect, nor is it contingent on escape or detection. It looks down upon the act proposed, as degrading and beneath its dignity. It can agree to no compromise in which its loftiness of feeling is made to yield to the impulse of a propensity. But if Self-Esteem is solely solicitous about itself, Veneration is not less inclined to disregard its possessor, and to inquire what may be the wish and will of a Superior Being, in reference to the act contemplated. That wish and will are ascertained through the intellectual medium, either by means of a direct revelation, or inferentially from all the revelations made. In that wish and will, it seeks solely for its warrant for the act. The presumed disapproval of that Higher Being insures its hostility. It would not willingly incur the pains and penalties of the religious sanction.

These counteracting forces, either singly or combined, may be sufficient to control the whole mind, and thus constitute will. Their influence is all in one direction—is restraining, modifying. That of the impulse furnished by the propensity is in the other. From that impulse an appeal is made to the higher feelings—to the sense of the just, which requires, under all circumstances, an adherence to right—to the feeling of cautiousness, which demands the adoption of that course of action which avoids all injury—to that of approval which would conduct every thing, with express reference to securing the approbation of mankind—to that of self, which can admit of nothing tending to diminish the high sense of self-respect which it encourages—to that of the reverential, which can assent to nothing contravening the presumed mandate of a Superior Being.

There are many chances for defects in all the different movements of this high-wrought machinery. The sentiments enumerated, may, some or all of them, be weak, and the emotions

they furnish, defective in power and influence. Such weakness is productive of two results. First, The intellectual faculties are less stimulated to act; and, second, The results of their action are less strongly *felt*. So the intellectual faculties may be defective in strength. The existence and action of external things, in reference to which the sentiments all *feel*, may be but imperfectly perceived and known. The reflective powers may be defective in their comparisons; in their deductions of cause and effect; in their balancing of probabilities; and in the numerous judgments they are called upon to render in reference to external things. We may readily perceive, therefore, that although the sentiments may be gifted with the power of experiencing deep emotions, yet a defective intellect may communicate such imperfect results; as rather to mislead than guide them in their action. The more complex the machinery, whether material, physical, or mental, the more multiplied are the chances of going wrong, and also the more perfect the general power of sustaining a correctness of movements. A delicate and complicated machinery may be easily injured in many different ways, but the injuries will only impair, not destroy it. It always finds in itself resources and substitutes sufficient to remedy minor injuries, and to insure general correctness in its motions.

If, as a general result, the restraining or modifying influence of the higher sentiments is possessed of the same or a greater degree of strength than the original impulse, the intellectual faculties will be strongly stimulated to devise some possible mode in which the one can be followed or obeyed without violating the feelings or promptings of the other. Such a mode must exist, or the Creator has bestowed one or more faculties of mind never intended to be exercised. The man may apply himself to business, and his acquisitions will then be the gains of honest industry, not the fruits of larceny or robbery. In this manner, Acquisitiveness may be gratified consistently with the claims of the high moral sentiments. A resort to such means is sanctioned by Conscientiousness, because no rights are invaded; it awakes in Cautiousness no fears, because no dangers are incurred; it secures the sentiment of Approbativeness, because on their employment man sets the seal of his approval; it insures the concurrence of Self-Esteem, because self-respect is not diminished by a compromise of dignity; and is in harmony with the feeling of Reverence, because it involves no violation of the will of a superior being.

After all these laboured processes of feeling and intellect are accomplished, a final decision only remains to be made. The elements of that decision we have already investigated. It will be in favour of the act or against it, according to the

strength of the impulse compared with that of the restraining or modifying sentiments. In it is found the essential of Will.

Operations the same or similar occur in reference to the impulses furnished by the other propensities. They are obeyed or disobeyed according to their relative strength, compared with that of the high moral and religious sentiments. In the last we find the kind protectors of all our social institutions, valued privileges, and inestimable rights. We have already, by way of illustration, had occasion to notice the protecting guards they throw around our property; but security of property is less valuable than security of person: it is less carefully guarded. The impulses sent forth from Combaticiveness and Destructiveness must possess great strength before they can attain that highest point where all conflict ends, and all influences blend together in the formation of Will. The appeals made to Conscientiousness, to Cautiousness, to Approbativeness, to Self-Esteem, and to Reverence, may call forth from each as authoritative a mandate, and as strong a directing influence, as in the case we have already considered. In addition to these, however, other influences are exerted. So very careful has the Creator been of life, and of the preservation of the rights of person, that He has shielded the infancy of our being,—that period when, more than all others, protection is necessary,—beneath the strong propensity of Philoprogenitiveness. Around our friends, those with whom our intercourse is the most familiar, and those, therefore, with whom occasions of variance would be naturally expected the most frequently to occur, He has thrown the often-impenetrable folds of a strong Adhesiveness. In the sense of the Marvellous, aided by Cautiousness, He has implanted the strong fears of retributive justice. Over the great mass of mankind, the entire sensitive creation, He has cast the protecting mantle of a benign and all-diffusive Benevolence. The higher, therefore, the nature of the right rises, the stronger are the guarantees that protect it from violation. The more we are enabled to comprehend the deep things of Nature, the more we see to admire in the fathomless designs of her Author.

We may now inquire how far is the Will free? And we answer, that all volitions, as well as all the mental conflicts that precede them, are free, except in the submission necessarily yielded to those great laws or governing principles, that preside over the movements of all our faculties. With their requisitions we cannot refuse a compliance. We can no more prevent our Love of Approbation from being gratified with the approval of others, or our Conscientiousness from being pained at a violation of right, or our feeling of the Ideal from being delighted with the beauty, grandeur, and sublimity of objects,

than we can arrest the course of a star by a thought, or reverse the law of gravitation by a volition. We have no more created the functions of our faculties, than we have the organs of our bodies; and the functional action of the former is as much beyond our control, as are the organic operations of our material frames. We may as soon teach our finger to feel pleasure from being burnt; as our Love of Approbation to take delight in being ridiculed. If we could control the functions of our faculties, I know not what could be said to constitute the *I* that is now the agent of all feeling, thought, volition, and action. Some principles, purely fundamental, must exist, or there could be no common tie between the members of the human family. Such principles are manifested in the functional action of each faculty. That action, if it exist at all, is a necessary one.

Neither actions nor volitions, however, bear on them the stamp of necessity; they follow as the results of the functional action of all the faculties. Those results are infinitely varied. They proceed from the action of many or all of the primitive faculties, modifying each other. A volition is the point where all the mental faculties are concentrated. It is the representative of the entire mind. It may be compared to a common fund made up from the contributions of the propensities and sentiments, enlightened by intellect. The more the intellect is cultivated, the clearer it enlightens; and the more the high moral and religious sentiments are improved, the stronger the directing and modifying influence they exert over the impulses of the lower propensities. One of the clearest proofs of the freedom of the will is derived from our own consciousness. In the act of willing to perform, we are conscious of the power to will directly the reverse; and evidence derivable from a feeling of which we are conscious is as proper and as convincing as that derivable from other sources.

Let us now look at some of the consequences flowing from the doctrine of the Will as I have been considering it. If Will be THE DECISION OF THE WHOLE MIND UPON THE WHOLE MATTER, there will be some persons who can hardly be admitted to have a Will. They pass through their entire life without making up their minds upon any one important matter. There are individuals of that description. In such, Cautiousness is strong, and the temperament generally inactive. They seldom act except by halves. There will, on the contrary, be some men whose life will consist in action. It may not be the best directed or the most judicious. It may be less characterised by cautiousness than by rashness. We have such men among us. They are the active spirits of our world. They prevent a stagnation in the affairs of men, and throw over the surface of society all the

stir, bustle, and never-ceasing activities of life. They find it far less difficult to will than successfully to execute; and easier to commit an error by a hasty act, than to correct one by judicious management.

There will be men who will be always commencing operations, but never complete them. They lack that firmness that gives continuance of application. Their successive volitions are swayed by the novelty of new adventures. An unsuccessful termination never damps the ardour of a new beginning. They generally finish nothing but their property, and end nothing but their lives.

There will be those possessing great force and power of will. Mental decisions may not be rashly formed, but when once in existence, they will pass into act with all the energy of a power confident in its own strength, and unaccustomed to defeat. Circumstances contribute to form them, but those subsequently occurring, unless they are of such a nature as precludes the ability to foresee them, can rarely effect a change, modification, or reversal. Decision of character depends upon the promptness with which the action of the different faculties results in will, and the energy with which the volitions are carried out into action.

It is a result of this doctrine that the acts of men are evidences of their volitions, although not always of their motives. The volition is developed in the act that carries it into effect. All human volitions being so many acts of the entire mind; so many points of union in which all the powers and faculties unite; are constantly, as far as they are evidenced by actions, furnishing materials upon which judgments may be predicated in relation to individual character. We can, in general, infer modes of belief, and principles of action, from the general course and current of conduct.

On the same principle is also predicated the uniformity observable in the actions of our fellow men. It may be safely assumed that the great laws and governing principles that preside over the main springs of action are ever the same in the same individual. The force of circumstances may vary the immediate application of those laws and principles. It may, if exerted for long periods of time, strengthen some and weaken others. But, after a sufficient time has elapsed for principles to form, and after their actual formation, we generally see them regulating all the subsequent movements and acts of the individual. When do we ever see parsimony generous or economy prodigal? When do we ever behold the strictly just become dishonest, or the mildly benevolent destructive? The ruling passion is ever strong, even in death, and the vain man cannot

* Such changes do occur, but always as symptoms of disease.—EDITOR.

lay aside his love of approbation, nor the proud man his self-esteem, nor the cunning man his secretiveness, nor the destructive man his revenge, until the vital spark has ceased to vivify even the embers of existence, and the music of every organ is hushed ; and the throbless brain is left to its last place of repose—the pillow that never crumples. All our acts in reference to others are based on the assumption that the same kind of character that has heretofore been developed in action will still continue to be ; that in regard to the individual, in a philosophical sense, the saying of the wise man is true, that “ the thing that hath been, it is that which shall be ; and that which is done is that which shall be done : and there is no new thing under the sun.” We are accustomed to calculate the influence our conduct will exert upon the character and conduct of others, and the efficiency of the motives we offer as inducements to action, with almost the same unerring certainty that we deduce the effect from its cause in the physical world. We endeavour to influence the will and action of the just man by appeals to his sense of right ; of the good man by exciting his benevolence ; of the proud man by awakening his self-respect ; and of the vain man by a reference to the opinions of others ; with the same assurance of success that we expect our floating canvass filled with the breezes of heaven will bear onward our bounding bark on the ocean wave ; or that the lightning will follow the protecting rod, and leave our dwellings uninjured. We cannot escape the empire of cause and effect by retreating from the physical into the intellectual and moral world.

It results from this doctrine that our volitions will become more perfect, more in harmony with the higher nature of man, more in unison with the adaptation of that higher nature to the constitution of things around us, in proportion as the entire mind, in all its different departments, acquires a perfection in its action, a subordination of inferior to superior motives, a direction given to all its active movements, which permits the impulses furnished by the propensities to be followed without in the least conflicting with the claims of the higher sentiments. To this growing perfection of our volitions, the history of our race bears evidence. That mighty record of human volitions, carried out into all their diversified forms of action, will sustain the position, that at early periods, when the physical obstacles of a new world were to be overcome, and a severe warfare with hostile elements was to be waged, the will was little more than the mere organ of the propensities and some of the lower sentiments, partially enlightened by intellect. The dictates of benevolence were but faintly and feebly uttered amid the din of the propensities. The spirit of modern institutions evidences the strong influence exerted by a high moral and religious na-

ture in the formation of volitions. Man is fast arriving at that proud period in his history when his volitions and consequent actions will be so many points in which his different natures will harmonise with themselves, and also with the constitution of all things around them ; when all the relations will be properly preserved, all the desires gratified, and all the impulses to action obeyed, under the guidance and direction of the high moral and religious sentiments enlightened by intellect.

It follows, as the most important consequence from this doctrine, that the moral accountability of man embraces the action of his entire mind, intellectual and affective, and nothing beyond that. It seems to be universally conceded that moral accountability is based on our volitions. We feel this within us, and we recognise it as the language of every thing without us, of all our customs, of all our laws, of all the institutions that bind together the fabric of society. As the elements that compose the will are all the faculties of mind, both intellectual and affective, accountability must be co-extensive with their entire operation. It is certainly a great desideratum to establish the true limits of moral accountability,---to determine its extent and boundaries,---to understand precisely what it embraces and where it ends. It is productive of consequences equally injurious to extend it beyond what it embraces, as to stop short of its true limits.

Moral accountability has been made by some to embrace the judgments we form, the opinions we entertain, and all the different modes of belief known and acted upon by our intellectual nature. This is erroneous. Judgment, opinion, and belief are intellectual operations. The affective faculties have not necessarily any agency in their formation. They are not therefore acts of the whole mind, and for that reason at least, differ essentially from volitions. In their formation, the intellectual faculties act in obedience to laws imposed upon them, not created by them. For the right or wrong operation of those laws we cannot be made responsible. We believe not according as we will, but according to the evidence furnished us. On that evidence our faculties are framed to act, and to believe or disbelieve according to its strength or weakness. We can no more resist a conclusion when the evidence is sufficient, than we can, with our eyes open at mid-day, resist the seeing of objects. We shall find sufficient in ourselves to which the high attribute of accountability must necessarily attach, without extending it to that over which we have no control, and for which, therefore, we are not accountable.

I do not here refer to the opinions *avowed*. They may be very different from those actually *entertained*. Neither do I refer to those where our intellectual faculties are influenced by

our volitions to seek, and, as far as possible, entertain, that evidence only which goes to substantiate one side or view of a question. This is doing violence to our intellectual nature. It implies an unconquerable desire to believe in one side, but at the same time a suspicion, which perhaps would often fall but little short of belief, that the other is the true one.

Neither are those wandering thoughts or impulses to act, or occasional feelings, wishes, or desires, that are of spontaneous growth, within the great pale of accountability. The propensities were created to furnish impulses, and the sentiments to feel emotions, and the intellect to perceive, know, and reason. In fulfilling the great design of their creation, they are no more accountable than is the heart in the circulation of the blood, or the stomach in the digestion of aliments.

But while I deny that moral accountability embraces any operations of the intellect merely, or that it extends to the functional action of any faculty, I would not limit it to individual actions. Human laws can only render man accountable for his acts, not merely because they are the only sufficient evidences of volitions, but because it is from them alone that the community generally receives any detriment. It is rather with the consequences of such actions as were free to have been done or omitted that human laws deal, than with the actions themselves. The principle is the amendment of the criminal, and self-protection to be accomplished by the prevention of acts attended with similar pernicious consequences. Beyond these human power and agency cannot reach.

Moral accountability to the Creator is based on a different principle. The act is not there required as the evidence of the volition. Neither are its consequences considered beyond their moral influence upon the individual. It is for the mere volition, the decision of the whole mind upon the whole matter, and for that only, that man is morally accountable to his God. For the evidence of this truth we need not travel beyond ourselves. The faithful sentinel which the Creator has located in every bosom, in the shape of a warning conscience, addresses us on this subject in a language we could not disregard if we would, and should not if we could.

Man is not then accountable for the modes of his intellectual action, for his judgments, opinions, or belief; neither is he accountable for the mere functional action of any of his faculties, whether it results in wandering thoughts, impulses, feelings, wishes, or desires. But he is morally accountable for his volitions,—to his fellow-man, so far as they are evidenced by actions,—and to his Creator, so far as they are perfect volitions, whether evidenced by actions or not.

Will, as I have been considering it, harmonizes the entire

action of mind with human rights, duties, obligations, and responsibilities. It is the common ground where the intellectual, affective, moral, and religious natures of man all meet, modify, and correct each other. It constitutes (and so it will continue to do through all the modifications of its whole existence) that same inscrutable *I* that thinks and feels, and wills and acts with entire freedom, subject only to the conditions imposed by its Creator, and to the great laws and governing principles that preside over and regulate the functional action of all its elementary faculties. A. D.

ALBANY, NEW YORK, U. S. A.
May 7, 1836.

ARTICLE II.

DE VIMONT ON THE ORGAN OF ATTACHMENT FOR LIFE OR MARRIAGE.

IN our last number we gave a translation of the seventh section of the second volume of Dr Vimont's *Traité de Phrenologie*. We now proceed to section VIII., entitled "*Organe de l'attachement à vie, ou mariage.*"

"Is there," asks Dr. Vimont, "a special faculty for attachment for life, or marriage? Is it only the result of the action of several faculties, or the modification of one only—that of Adhesiveness for example—of which I shall speak hereafter? A more profound study of the organisation of the nervous system of animals and of their habits, can alone throw light on this question.

If we watch closely the conduct of wild animals, we shall find that amongst some species, the males after having satisfied the desire for sexual intercourse, separate themselves from their females,—either to go to impregnate others,—to live in a state of solitude,—or to unite themselves to several individuals of the same species and of the same sex. Such we see is the case among wild boars, wolves, and stags. Other species again live constantly with their females (*dans l'état de mariage*)—for instance the fox, the marten, the roebuck, amongst quadrupeds; and the raven, the jay, the magpie, the swallow, the sparrow, amongst birds.

Gall, though seemingly disposed to believe that attachment for life depended on a particular organisation, has not cleared up the subject by instances drawn from comparative anatomy. Nor has he been more explicit with regard to man.

Spurzheim thinks that marriage is but a modification of the faculty of Adhesiveness; that the instinct of living in society,

and that of living in family, are only particular modifications peculiar in their nature,—just as the taste for vegetable or animal food is a modification of smell and of taste in herbivorous and carnivorous animals.

These observations of Spurzheim are but specious, and are overturned by studying the habits of certain species: I do not think that union for life is merely a modification of Adhesiveness:—it appears to me to possess all the characters of a fundamental faculty. To me it is sufficiently proved that an animal may have great Adhesiveness and yet not live in company with its female. The dog is a striking instance in support of my assertion. Wolves live often in large bodies, but do not remain in a state of union with their females. Stags act in a similar manner. The fox, though brought up very young, does not attach himself to any one, but unites himself to his female for life. It is not then true that where this union for life exists, we find adhesiveness; which, however, ought to be the case if it were, as Spurzheim affirms, only a modification of that faculty.

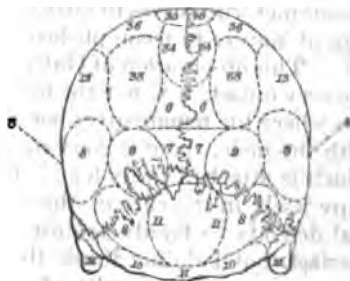
Gall has not, in my opinion, given a more satisfactory solution of this question, when he says, "If I could place full confidence in my knowledge of natural history, I would offer an opinion of my own. It appears to me that in all those species where the male and female mutually assist in taking care of the young, there is union for life; but in those species, on the contrary, in which the male contents himself with procreating young without assisting in any way in bringing them up, that the first female met with serves to satisfy his desires, and that the main design of nature is accomplished without the bond of union for life." This observation of Gall in nowise settles the question. At the very outset, it is not the fact, as he states, that in those species where the female gives her attention to the young conjointly with the male, there is constantly union for life. The roebuck, which is attached to its female for life, does not in any way occupy itself in the care of the young. Gall says that this animal defends its family against their enemies. I do not deny the fact, but I do not think that we must necessarily attribute this conduct to the faculty of attachment to its young. Supposing even,—which however is not proved,—that in certain species where this union for life exists, the male and female give themselves by turns to the care of their young,—that does not by any means prove that the two faculties are not distinct: the one appears to me totally different from the other, since its action continues long after the young are separated from their parents. The explanation of Gall, then, is none at all. Spurzheim believes that it is attachment and friendship which the male and female feel for each other which determines them not

to separate after the instinct of propagation is satisfied, and to remain united even beyond the season of desire. Is this not in other words saying that there exists in certain species a sort of attachment which induces them to remain united for life, and after the observations which have been made, are we not compelled to admit that it is not to adhesiveness, properly speaking, that we ought to attribute such conduct?

Gall does not appear disposed to consider as a faculty belonging to man, that of union for life; or at least he seems to view it as a modification of the organ of Adhesiveness, and not as a special fundamental faculty. There are, says he, men and women who, without any outward adventitious cause, have an aversion for marriage. If we could read the bottom of their hearts, we might there find the solution of the enigma. Are such persons incapable of attachment or friendship? Do they dread the charge which a family imposes? It will be seen that this language of Gall is exceedingly vague, and that it is only presented to us under the form of a doubt.

The more I have studied the conduct of men and the habits of many species of animals, the more satisfied have I remained that the feeling which leads to attachment to one companion for life, is the result of a fundamental faculty. Some observations which I have made on the human species, and many more which I have collected amongst animals, have enabled me to fix the situation of the organ in man and animals. Before pointing out upon the brain and skull the place where it is to be found, I must enter into some anatomical details.

The region of Philoprogenitiveness (*de l'attachement pour les petits*) as laid down in the works or on the bust, which phrenologists have in their hands, occupies too extended a space, and comprehends two distinct portions of the brain, the one placed at the middle part (No. 11, Pl. LXXXVIII, Fig. 2), the



other (No. 8.) more laterally and outwards. The first appears to me to be the seat of the organ of Philoprogenitiveness, the other that of attachment for life or marriage. I have already found this latter region well developed in two persons who had very early manifested the desire of being united to each other, and without being induced to do so by other motives than such as lead to four-fifths of marriages. I have found on the other hand the same region but little developed in persons who had naturally a repugnance for marriage. As a few observations

will not suffice to establish a certainty, I would entreat physiologists who have opportunities of making numerous observations to ascertain if new and carefully noted facts might be found to confirm my remarks.

Except in quadrumanous animals, it is not in the region of the occipital bone that we ought to look for the seat of the organ which leads animals to become united for life. It must be recollected that I maintained this point of anatomy, while describing the occipital region of quadrupeds and birds; in the former it is entirely filled by the cerebellum; in the latter it contains the cerebellum, and a great part of the acoustic apparatus.

It is then in the posterior parietal region that we should look in these two classes for the seat of the organ in question. I have compared with care the skull and the brain of a species of birds, well known to live in a state of union, as well as those of species which live separated from their female after impregnation. There is a remarkable difference which I have observed between them. The portion of the skull corresponding to the middle part of the posterior border of the cerebral hemisphere (No. 8, Pl. xciii. Fig. 3) is very prominent in all birds which live in a state of union. Such are the following skulls and brains which have presented to me this form of organization very apparent. The buzzard (Pl. lxx, Fig. 3), the great raven (Pl. lix, Fig. 1), the great screech owl (Pl. lxxi, Fig. 2), the hooded crow (Pl. xlv, Fig. 3), the magpie (*id. pl.* fig. 4), the jackdaw (*id. pl.* fig. 5). The brain of the hooded crow, of the great screech owl, and of the buzzard, will be found represented in Pl. lxxiii, Fig. 1, *id. pl.* Fig. 5, and Pl. lxx, Fig. 4. We should remark, that in these three species which live in a state of union, the cerebral hemisphere is not only much raised and well rounded towards its posterior edge, but that it is prolonged, even in a perceptible manner, over the tubercula quadrigemina.

Another fact which I should point out is, that, if we remark the extent of the posterior part of the cerebral hemisphere from the point where it touches the other, to the exterior side, this part is found much more developed in the cases just mentioned than in those species which are not united for life, we may compare in this respect, the brain of the domestic goose (Pl. lxxi, Fig. 2), with that of the buzzard (*id. pl.* Fig. 4); and again we may compare this region (8) in the raven (Pl. xciii, Fig. 3) with the same region in the turkey-hen (Pl. lxxii, Fig. 4), and in the common hen (*id. pl.* Fig. 1.) With a little attention, it will be found that the difference is very striking. I beg those who possess a collection of skulls of animals, to place the skull of a turkey-hen and that of a hooded crow near each other;

they will be at once struck with the difference which I have just now pointed out; in the turkey-hen all that portion is depressed; in the hooded crow, on the contrary, it is full and rounded.

The portion of the brain which manifests attachment for life in quadrupeds is that which is found situated backwards and outwards from No 11. (Fig. 7, Pl. LXXV.) Let any one compare two brains having very nearly the same volume and of the same class,—the one, for instance, which I have now pointed out, being that of an animal which lives in the state of union; the marten, with that of the cat, which lives in the opposite state (*id. pl. fig. 2.*), and he will see that, in the former, the convolution 10 is not prolonged so much backwards, and covers much less of the cerebellum. The convolution 10 in the cat is that which gives rise to Philoprogenitiveness. In all the animals which live in a state of union this convolution is extended more backwards. I have found these relative positions well expressed in the brain of the badger, the fox, the polecat, the marten, and the weasel, all animals living in a state of union. We may compare with this view the brain of the badger with that of the dog. (Pl. LXXX.) The same part seems to me but little developed in the rabbit, the hare, and the guinea pig. Again, to shew the difference of development of the organ in question, we may compare the brain of the weasel, which lives in a state of union, with that of the guinea pig which feels no lasting attachment to its female. (Pl. LXXIV, Fig. 5, and Fig. 1.)

Before closing the account of the faculty which leads man and animals to become united for life, I cannot pass over in silence certain remarks which might seem to militate against the opinion which I have now offered. We are told, and Gall himself relates the fact, that wild cats and wolves had lived together in a state of union. Even supposing this observation to be true, I do not think that it can overthrow the opinion that attachment for life is the characteristic of some species only, and consequently a fundamental faculty. Because, one may have seen a wolf and a cat, animals which do not live habitually in a state of union, to be always together, we are not obliged, as it seems to me, therefore to conclude that such is the ordinary state of those animals. It is not surprising that living isolated, two animals of the same species become attached so far as to remain together, but in order to make the observation conclusive, it would be necessary that the wolf and wild cat had lived in a state of union, though surrounded by several animals of the same species.

ARTICLE III.

CORRESPONDENCE BETWEEN MR SIDNEY SMITH AND THE
EDITOR OF THE PHRENOLOGICAL JOURNAL.

TO THE EDITOR OF THE PHRENOLOGICAL JOURNAL.

SIR,—IN the last number of your periodical, I observed the following notice:—

“GLASGOW.—Since our last number, Mr Sidney Smith has been lecturing to a very large audience of operatives.”

Mr Hewett Watson, in his *Statistics of Phrenology*, has stated that the Journal is generally complained of as being altogether confined to the promotion of the peculiar views of its conductors, and I must say that the passage quoted above is not calculated to remove this impression either from my mind, or that of the audience who honoured me with their attendance at my lectures. It is likewise a specimen of the grossest carelessness on the part of the editor in the collection of phrenological statistics. The lectures were delivered at a distance of only forty-two miles from his residence. Notices of them appeared in all the Glasgow newspapers. The editor of the Glasgow Argus, to whose genius, enlightenment, and liberality, I am anxious here to bear my humble testimony, inserted, unsolicited, and without my knowledge, a full report of my opening lecture in his paper, and stated both the numbers and quality of my audience. The excellent conductor of the Edinburgh Weekly Chronicle, transferred these notices to the pages of his journal. On my return to Edinburgh, I was charged with letters from Drs Weir and Macnish, to Mr Robert Cox, the reputed editor of the Journal, in which, I presume, the facts would be stated. I delivered them in person, a month before the last number was published, and told Mr Cox the facts exactly as they stood. For your information, and in justice to the gentlemen forming the committee under whose auspices the lectures were delivered, I shall here detail the circumstances.

The six lectures of which the course was composed, were delivered in the Methodist Chapel, John Street. Two were given each week, and it so happened that it rained heavily each night throughout the course. The audience consisted of a thousand persons, of whom not above *forty were operatives*, a circumstance which I deplored. The rest consisted of ladies and gentlemen of the best educated and most respectable middle classes. Some of them came from the country—in a few instances ladies and gentlemen walked in from a distance of four and a-half

miles in the rain. The Phrenological Society of Glasgow elected me an honorary member of their body, and at the close of the lectures nearly one hundred gentlemen, among whom were magistrates of the city, landed gentlemen, eminent merchants, members of all the learned professions, and gentlemen of the University, conferred upon me the high honour of entertaining me at a banquet, in testimony of their consideration of the cause which I had advocated, and the manner in which I had supported it.

I had also the satisfaction of converting several individuals of great influence to a belief in Phrenology, by taking their development, and sketching from it their character. For obvious reasons, I cannot name these persons, but I can appeal to several gentlemen of Glasgow in testimony of the fact.

Now, Sir, if, in spite of the peculiar views and interests of the conductors of the Journal, you do not feel called upon by a sense of truth, and the duty you owe to the phrenological public, to notice the progress of my labours in the science which you advocate, I am well contented to pursue my own path without your patronage, satisfied with the fair suffrages of independent men, determined to expose the errors of the apostles of the science fearlessly and honestly, and resolved to pay no black-mail of homage either to established opinions or phrenological cliques. But if you do notice my proceedings, I beg that you will take care to ascertain them carefully, and to report them accurately.

I request that you will insert this letter in your next number, or that you will state your reasons for not doing so. I am, Sir, your very obedient servant,

SIDNEY SMITH.

EDINBURGH, 18th May 1837.

THE EDITOR TO MR SIDNEY SMITH.

EDINBURGH, 18th May 1837.

The Editor of the Phrenological Journal has received Mr Sidney Smith's letter of this date, and begs to mention to Mr Smith, that he does not see the Glasgow newspapers unless they are sent to him by some friend who wishes to call his attention to any particular piece of information which they contain, and that none of them containing any notice of Mr Smith's lectures ever reached him. He considers himself, therefore, as much entitled to complain of the inattention of the friends of Phrenology in Glasgow, in not favouring him with information, as Mr Smith regards him as blameable for not inserting a report of his successful efforts in that city. Mr Smith would perceive it announced in the last number of the Journal, that early in January last, Mr Cox became a candidate for, and was subse-

quently elected to the office of Secretary of the Literary, Scientific, and Commercial Institution of Liverpool. From the beginning of the present year, Mr Cox was in consequence unable to devote any attention whatever to the Journal, and whatever information he may have possessed regarding Mr Smith's lectures, it was not communicated to the present editor; but he is not aware to what extent Mr Cox was informed on the subject.* Mr Smith writes on the supposition that it is the editor's duty to employ persons in the different towns of the kingdom, to collect statistical information regarding the state and progress of Phrenology. The editor begs to inform Mr Smith that it is not in his power to do so, because the circulation of the Journal has never been so great as to enable the proprietors to offer any remuneration either to the contributors, correspondents, or editors, of the work. The Phrenological Journal, from the first number to the present, is the product of voluntary zeal alone. This circumstance is offered as an apology to Mr Smith, and its readers in general, for its being "confined to the promotion of the peculiar views of its conductors," in so far as there is any truth in this accusation. The conductors are not aware of any communication having been sent to them, written in a philosophical spirit, which the compass of their work enabled them to publish, which they did not insert. The individuals who did favour them with contributions, of course maintained the views which appeared to them to be sound: and if the topics discussed were not so various in their character as Mr. Smith desired that they should be, the Editor may have to regret the lack of zeal in gentlemen who entertained views different from those generally advocated, but he cannot take blame to himself for not publishing communications which were never presented to him, and which he possessed no means of procuring.

He has to express his regret also, that although the Journal containing the notice of which Mr. Smith complains, was published on 1st March last, Mr. Smith should have delayed his communication till the evening of the 18th of May, at which hour the last sheet of the number of the Journal for June was in the press, in order to secure its reaching London in time for delivery with the ordinary periodicals which are distributed in the Metropolis on the first day of that month. In consequence, it cannot appear till the September number.

The Editor rejoices to hear of Mr Smith's success as a lecturer, and assures him that the notice of which he complains was written by him from the best information which he pos-

* Since this letter was sent, we have learned from Mr Cox that he requested a phrenologist of Glasgow to furnish him with information for a notice of Mr Smith's lectures, but that he received none.

ceased at the time, and that he will on all occasions be happy to print correct notices of Mr Smith's proceedings, if he will take the trouble, as he has now done, to furnish him with the means of doing so.

The Editor and Conductors of the Journal feel no resentment on account of the inferior motives ascribed to them, and disrespectful expressions contained in Mr Smith's letter. They leave their conduct with confidence to the judgment of the phrenological public both now and hereafter.

MR SIDNEY SMITH TO THE EDITOR.

EDINBURGH, 13th June 1837,
20 CLYDE STREET.

SIR,—I received your letter of the 18th ult., and regret to find that my communication of the same date was not in time for your number of this month.

I shall rejoice to find that neither the Editor nor Conductors of the Journal are actuated by inferior motives, and that there is no ground for suspecting any of those who have an influence in its management, of making it the mere vehicle of promoting their individual ulterior interests, and that none of them are influenced by any paltry spirit of jealousy against other phrenologists who differ from them in their views widely, either in science, morals, or religion.

I thank you for the expression of your good wishes, but am extremely sorry to find that you have no other source of regular information on the subject of the progress and success of lecturers upon the science, than their own statement. This is a source which the public ought, and is entitled to look upon with suspicion. I would before this have informed you of my proceedings, had I not been conscious that, in ordinary circumstances, intelligence from so interested a quarter ought not to be trusted. The necessity of the case must, however, justify a departure from the general rule, and I must for once become my own historian, in order to bring up the day-book of phrenological statistics.

I lectured during the winter in Falkirk, under the auspices of the School of Arts there. A course on Chemistry preceded that on Phrenology, yet such were the superior attractions of the latter subject, although the lecturer had to stand in competition with a long experienced, talented, and successful professor, that the audience increased from 80 or 95 to nearly 300. All the clergymen of the place attended regularly, with the exception of the established minister, and one of them moved a vote of thanks to the lecturer, which was carried unanimously, for the assistance which the course had given to the elucidation of truth and the principles of morality. A soirée

was afterwards given, at which my excellent and liberal-minded friend Mr Welsh, the Relief clergyman, presided, attended by the numerous ladies who had honoured the lectures by their presence, the Sheriff-substitute, the principal medical gentlemen, and other respectable inhabitants. The principal topic of observation was the lectures on Phrenology, with some excellent allusions highly gratifying to a phrenologist, upon education, and its lively expounder Mr James Simpson. He will be gratified to know that his exhortations to found an infant school at Falkirk, were crowned with complete success.

Besides the course, I gave a forenoon lecture and manipulation, and at their own request, on various occasions manipulated the heads and indicated the characters of many of the principal and most remarkable men in the town. So completely triumphant was the experiment, that it alone convinced them of the truth of Phrenology, and so striking has been the effect of the science on the minds of the people, that so late as 14th May last, a member of the committee of the School of Arts thus writes: "Phrenology still continues to be an exciting subject of conversation among us, and seems to have made a much deeper impression in all our circles than from the knowledge I have of the place I could have anticipated." It is with a deep feeling of gratitude that I now here acknowledge the extreme kindness and attention with which I was treated by the inhabitants of Falkirk, and for the liberal, enlightened, and unprejudiced spirit with which they received the statements which I had to offer. To the ladies of that place, Phrenology is deeply indebted for the patient and most attentive hearing which it obtained. I enclose a notice by the Stirling paper of the course, which was sent to me the week after I returned to Edinburgh.

On the 5th of May, I received a requisition to lecture at Kelso, signed by about a hundred of the inhabitants, including landed proprietors in the neighbourhood, four clergymen, seven physicians, besides bankers, writers, teachers, merchants, and others. I gave nine introductory lectures in the Town Hall, which had been kindly granted by the Chief Magistrate, who attended them. The audience numbered a major proportion of ladies. I am happy to say that I have succeeded in organizing a philosophical association in Kelso. I am sorry that I have not the two first notices which appeared in the Chronicle, of my lectures, but I send the last two for your inspection. I am happy to find that the inquiring minds of the inhabitants of Hawick demand farther information on Phrenology, and it is probable that the good town of Berwick-upon-Tweed will follow the example. I remain, Sir, your obedient servant,

SIDNEY SMITH.

Note by the Editor.—We cheerfully insert Mr Smith's two letters, and the account of his proceedings contained in them. Conscious as we are of having carried on this Journal for fifteen years, at an expense of time, trouble, and money, which would have exhausted the patience of most men, and of having been supported in our arduous undertaking purely and solely by the love of truth, we feel very much at ease under Mr Smith's reiterated insinuation of our being actuated by inferior and interested motives, in not having paid a reporter to communicate an account of his lectures in different parts of the country. We confess, indeed, that we are so callous to reproach on that score, as to doubt whether, but for the exertions and sacrifices we have made in diffusing the knowledge and hastening the progress of Phrenology, the public would now have been so well prepared to hail the appearance of Mr Smith as a lecturer, and to appreciate either his abilities, or the importance of the truths which he so zealously advocates. Confident in the omnipotence of truth, we laboured long and arduously in its diffusion with but little encouragement from any quarter; and now that the prospect is brightening, and that success begins to reward our exertions, we are ready to welcome not only Mr Smith but a thousand more fellow-labourers into the field. There is room and work enough for all, let their talents and activity be what they may.

Mr Smith blames us,—concurring, as he says, with Mr Hewett Watson,—for promoting our own peculiar views in the conduct of our Journal. We wish Mr Smith had quoted Mr Watson's words. Without the italics, which are ours, Mr Watson's words are: The Journal "has been much complained of as representing the feelings and ideas of its conductors, rather than those of the phrenological public." This passage, which merely means that there is much in the Journal which is a transcript of the faculties, affective and intellectual, of the writers in it, neither warrants Mr Smith's words that the complaint is "*general*," nor that the Journal is "*altogether*" confined to the kind of writing objected to. But least of all do Mr Watson's words give to the charge, even by implication, the immoral colour with which Mr Smith's words aggravate it, "*promotion of the peculiar views of its conductors*,"—"vehicle for promoting their individual ulterior interests,"—"paltry spirit of jealousy against other phrenologists,"—the whole of Mr Smith's censure in his first letter, which, by insinuation, he deepens in his second, imputing inferior or interested motives, of which Mr Watson never dreamed. We answered Mr Watson's objections in the merely philosophical character in which we understood them (for he attributes to our Journal "*moral excellence*") in this volume, p. 239; and we see, and have seen, no reply to that answer. We then regretted, and

still regret, that the objections were not better considered by Mr Watson. Injury, which our perseverance and sacrifices little merited, could not fail to be done by them ; but, although sorry, we were not angry, and assuredly never thought of imputing any other motives to Mr Watson than the same zeal for truth, with which we trust we ourselves have ever been actuated.

In subjoining Mr Smith's account of Alexander Millar, who was executed at Stirling for murder, we must not be understood as adopting, while we faithfully convey *his* "peculiar views." From some of them,—that, for example, about the bilious temperament depending on the organ of Firmness, and that which assigns the love of change as the function of Destructiveness,—we entirely dissent ; but that Mr Smith may not again accuse us of preferring our own views and keeping his from our readers, we leave them unquestioned and unrefuted, to be judged of according to their inherent merits.

ARTICLE IV.

PHRENOLOGICAL DEVELOPMENT OF ALEXANDER MILLAR.

By Mr SIDNEY SMITH.

In a biographical sketch of this unfortunate individual, recently published at Stirling, there occurs the following passage:—"His body was conveyed to a cell in the court of the jail, where, by permission of the Magistrates, a cast of his head was taken ; the operation being superintended by several respectable members of the Phrenological Societies both of Stirling and Glasgow. The assumed prevailing traits of the poor man's character we have not ascertained."

Having procured a cast of the head, I proceeded to supply the desideratum hinted at in the last sentence of this quotation. The development is under-noted :—

	Inches.
Greatest circumference of head,	23½
From Occipital Spine to Individuality,	7½
From Concentrativeness to Comparison,	7
Ear to Individuality, on one side,	5
on other side,	5½
Ear to Philoprogenitiveness, on one side,	5
on other side,	5½
Destructiveness to Destructiveness,	6½
Secretiveness to Secretiveness,	6½
Cautiousness to Cautiousness,	5½
Ear to Benevolence,	6
Veneration,	6½
Firmness, one side,	6½
other side,	7½

1. Amativeness,	19	19. Ideality,	13
2. Philoprogenitiveness,	16	20. Wit,	12
3. Concentrativeness,	15	21. Imitation,	17
4. Adhesiveness,	19	22. Individuality,	17
5. Combativeness,	19	23. Form,	15
6. Destructiveness,	20	24. Size,	18
7. Secretiveness,	20	25. Weight,	18
8. Acquisitiveness,	17	26. Colour,	17
9. Constructiveness,	16	27. Locality,	17
10. Self-Esteem,	16	28. Number,	13
11. Love of Approbation,	19	29. Order,	16
12. Cautiousness,	16	30. Eventuality,	17
13. Benevolence,	18	31. Time,	13
14. Veneration,	18	32. Tune,	15
15. Firmness,	21	33. Language,	14
16. Conscientiousness,	12	34. Comparison,	15
17. Hope,	19	35. Causality,	14
18. Wonder,	13		
Average size of Propensities,			17½
Lower Sentiments,			16½
Higher ditto,			15½
Perceptive Faculties,			16½
Reflecting Faculties,			14½
From Occipital Spine to Individuality, over top of head,			14½
From Ear to Ear, over top of head,			16

I have had, as I anticipated, great difficulty in taking this development. My experience as a phrenologist, and my practice in the criminal courts, had led me to observe that, in the heads of most persons who had pursued a long career of defiance to the laws of their country, there was a great want of symmetry, and a number of inequalities of surface. Millar's head is much twisted. One ear is placed further back and lower down than the other. The organ of Cautiousness is nearly two inches further forward on one side than on the other. Several of the organs are depressed on the right side—others on the left.

The head is of considerable size, indicative of power of character in some direction. The average of size, it will be seen, is on the side of the propensities; and it was to be expected, therefore, that the character would take its complexion, to the greatest extent, from these. The sketch is somewhat meagre in details interesting to a phrenologist; but still there are some which are of great importance.

I have long publicly expounded the doctrine that the Temperaments depend upon, or are indicated by, the peculiar development of certain organs. I found that the bilious, or, more properly the *muscular* temperament, depended on the organ of Firmness; and when it was casually mentioned to me that a person had been apprehended for murder, after a pursuit in which he had manifested the most extraordinary gymnastic powers, I immediately told the gentlemen who had informed me of the circumstance, that his organ of Firmness would be

predominant. Accordingly, this turns out to be the case, and measures from one ear 6½, and from the other no less than 7½ inches. In the whole of the Phrenological Society's collection, there is not one cast that nearly approaches such a size.

Born and bred in the lowest ranks of life, Millar possessed, from the enormous development of Firmness, a frame of the highest order of muscularity—capable of extraordinary endurance—great elasticity—and intrepid strength. The love of change, which I have taught to be the ultimate function of the organ of Destructiveness, is very largely developed, and, along with very large Combativeness, produced that roving, unsettled, wandering life, for which he was so distinguished. These organs are those which give the love of hunting, and naturally made the poacher. But perhaps it may be more useful to commence at the first organs, proceeding upwards, and comparing them with the character as far as given in the sketch.

Amativeness, 19.—Although little is said on this subject in the sketch, I should expect that Millar was very prone to indulgence in this propensity. The persons in the neighbourhood where he lived will be best able to tell. He must have possessed a very amorous temperament, and was, we presume, rather a favourite with the other sex. His Secretiveness, Love of Approbation, and large Adhesiveness, would give him an intuitive tact at making himself agreeable to them. In combination with his large Adhesiveness, it seems to have produced that extreme attachment to the woman with whom he lived, which is manifested in the following words of his letter to her: "I send word to them from Edinburgh Jail to take home you and little Jony, and if she had but one raty to give you the half of it as long as she lives." "There is one thing I hope you grant to me and will dy in peace with all men and that is never to marry no man but live single all your life and send me word about it my dear sally." "I hope we will meet in heaven in the last day." The biographer adds, "The interview with his wife, to whom he uniformly and throughout professed a sincere attachment," &c. was a pitiable scene.

Philoprogenitiveness, 16.—Letter:—"Be gid to little Jony poor man, my heart was like to brek when i sa his bar feet poor man." "Do not let any one keep Jony for they will hurt him." From the trial it would appear that the children of his acquaintances were on familiar terms with him—the sure indication of fair activity of this organ. It would also produce great fondness for his dogs, and any other animals he might rear, *when circumstances did not rouse his Destructiveness*.

Concentrativeness, 15.—He appears to have had average attachment to his native place, so as to return to it and remain under circumstances of danger and peril. Sometimes it appears

to have induced him to attend to his business of a cooper, but, being counteracted by the love of change, and of exercise and excitement in the unlawful occupation of poaching, was of course seldom manifested.

Adhesiveness, 19.—He must have been exceedingly fond of company, and manifested an extreme affection and attachment for individuals. He possessed the instinct of affection in very high endowment. For relations or friends, he, therefore, would sacrifice much, and would be considered very kind-hearted. In this respect, his actions arising from this faculty might be mistaken for those of that enlarged spirit of philanthropy which proceeds from Benevolence. But the difference is easily distinguishable. Adhesiveness, combined with his large Love of Approbation, would produce many acts of kindness to those to whom he was attached. But he would not be kind to men in general, nor to strangers, except in cases where he was likely to be praised for it.

Combattiveness, 19; *Destructiveness*, 20; *Secretiveness*, 20; *Acquisitiveness*, 17; *Firmness*, 21; *Benevolence*, 15; *Conscientiousness*, 12; *Cautiousness*, 15; *Wonder*, 18; *Ideality*, 18.—The evident combination of a thief, a vindictive ruffian, and a murderer. The majority of the jury may rest perfectly satisfied in the correctness of their verdict. The large size of Nos. 6 (Combattiveness), 6 (Destructiveness), and 15 (Firmness), with inferior No. 12 (Cautiousness), produce the coolness, courage, fool-hardiness, and cruel vindictiveness and rage of his disposition. "About *eleven years of age*, the master and me fell out, and, *in the rage of passion*, I gruppit his chair and laid it on the fire and burnt it." "When I was set till't (counting) the very second day I *burnt my books and broke my slate*." "And after leaving school, Sandy, it is said you were guilty of poaching?" "I canna deny that. Poaching! I was four months in this very jail for poaching." "The bull was mad, and had run about the fields for a hale fortnight, and naeboddy wad venture to gang near't. I gaed up till't wi' a rung, and hit it a slap owre the nose. It very nearly caught me tho', but I happened to jink it, and I sprang on its back, and it ran through the fields wi' me till it was fairly tired." "Prisoner snapped his fingers at witness (George Inglis), and said, 'You b——r, I'll bayonet you yet.'" "Prisoner then took the hook and put it round Jarvie's neck, and said he would thrav his head off with it if he spoke. He also took up a stone and said he would knock his brains out; and, on going away, said, 'D—n you, Jarvie, I will do for you yet.'" "The head was much cut and mangled. There were six or seven cuts on the head, and the skull was completely smashed in on the upper part and the brains coming out." His two arms were also broken. When

under sentence of death, he curses his two sisters in his letter to his wife, and hopes they will never do any good. His Firmness produced that endurance and muscularity which enabled him at two trials to clear a wall of eleven feet—to jump a five-barred and a seven feet gate at once—to tire out his very dog in running to Belfast—and at last to continue a chase for fifteen miles against fresh men who started in pursuit every quarter of a mile. His Secretiveness is acknowledged thus:—"When at school, then, you would be reckoned what we may say arch?" "Arch?" "Ay, cunning, sly." "Ou, I was *aye very cunning*." Secretiveness and Acquisitiveness, with deficient Conscientiousness, produced the thief. "I was never at a loss hoo to get ony thing I thoct on, and mony a time hae I stealt tippenny bricks (loaves)." "I was fond too o' takin awa the parritch cogs." His encounter with Jarvie commenced in his attempt at housebreaking and theft. "I broke into the house—he came and catched me—and I took a paling-stab and drove in his skull." His Cautiousness, 15, was defective, and accordingly, after the murder, his conduct was rash and foolish. His large Adhesiveness prompted him to betray his secret to Mrs Brown's daughter. Benevolence, 15, was enough to produce compunction. "Millar said the thing that vexed him most was, that Jarvie lifted up his hands, saying, 'Oh, for God's sake, let me alone.'" His Firmness, assisted probably by Hope (expecting perhaps a reprieve), made him refuse to confess. It made him remain "in a state of equanimity during most part of the morning" of his execution, sleep "well during the night," and maintain "his composure up to the moment in which he was freed from his irons." He declined assistance—walked unsupported to the drop—pushed up the cap two or three times—kicked off his shoes, and threw the handkerchief among the crowd—denying his guilt the moment before he was thrown off.

Constructiveness, 16; *Size*, 18; *Weight*, 18; *Colour*, 17.—Nothing is said of his mechanical powers, but I should expect him to have been neat-handed and expert at resources in matters of that kind. I could even suppose that he invented some articles, or turned old tools to new purposes. The latter three organs produce his unerring aim as a shot—his keen sight for game—his accurate eye in measuring distance in leaping. "I never saw a dyke that I couldna manage to get owre." "I was an excellent marksman." "I wad hae killed wi a paling-stab, if there had been a barrel on't."

Love of Approbation, 19.—"The few occurrences narrated were given by himself, not only with his own consent, but at his special request." "All mankind is anxious to bequeath to those they leave behind some characteristic traits that might tend to advance the reputation of their memory, His eye

brightened up, and there was not more than a momentary pause, when he exclaimed, 'Weel, sir, ye're just the very man I wish most particularly to see. I wadna gie in my shot to any ane in the country. As for *the newspapers*, they've done me nae justice either in regard to my racing, leaping, or shooting.' Notwithstanding the deplorable situation in which this unhappy individual is placed, his eye seems to kindle into brilliancy when recounting what may be called his gymnastic feats. Above all things he seemed to take much pleasure in reverting to his abilities as a marksman."

Veneration, 18.—His Self-esteem is less than Love of Approbation; and his behaviour in Court may be contrasted with that of Campbell in his respect for the Judges, in their presence, produced by his large Veneration when not overwhelmed by enormous Destructiveness, which, when excited, bore down all before it. He speaks of his father and mother with respect and affection; as also, in his own rude way, of his teacher Mr Oliver. He had an instinctive feeling, apparently of reverence, for the Sabbath, which a *little* influenced his conduct. "Millar said he was a great sinner, and rejoined—

"Life is the season God hath given,
To fly from hell and rise to heaven."

These are but meagre instances, but I should expect that, in general, he was respectful to his superiors, unless when under the influence of Destructiveness:

Imitation, 17; Secretiveness, 20; Tune, 15; Hope, 19.—These organs indicate considerable humour and a keen perception of the ludicrous. I have no doubt his acquaintances can remember many funny stories told by him, and attempts at imitating or *mocking* people's peculiarities. Imitation is vouched for thus—in speaking of partridges, he says, "I could cry that way man, that I just futch them into a hatter; it was sae like, they didna ken me frae ane o' themselfs." Tune is thus noticed—"Sung pieces of two songs—thinks one of them was about the 42d regiment."

Time, 17.—Nothing is said about this organ, but, I have no doubt, he could tell the hour by guessing with considerable accuracy.

Locality, 17.—Mr Combe remarks, "Dr Gall mentions that he had observed this organ large in distinguished players at chess." In reference to the kindred game of draughts, Millar observed, "I was fond of it; fine game, man, fine game; o' man how I enjoyed it."

The perceptive faculties, with the exception of No. 23, are all well developed; and he appears to have been an apt scholar, except in arithmetic, which he abandoned in two days, and pro-

nounced nonsense. He also did not know his own age. He seems to have had a good memory, and we should expect him to have had some love of arrangement and tidiness, in so far as his rude life would admit of it. His understanding, so far as concerns the reflecting intellect, may fairly be pronounced average, but from his manner of life, of course totally uncultivated.

Had this man been a savage, he would at once have been elected chief of the tribe. As a soldier or sailor he would have been distinguished. Born in the lowest ranks of society, in the midst, probably, of bad example and loose morality, the grovelling disposition which deficient Wonder, Ideality, and Conscientiousness are apt to superinduce, was enhanced and directed by tremendous power of character, and the fearful sway of ungovernable passions. In any rank of life he never could have been a good man—but respectable society and education acting upon his more than average (in some respect superior) intellect, and large Love of, Approbation, assisted in good resolutions by enormous Firmness, might, had he been employed by his country in difficult and dangerous enterprises, have exhausted the force of his animal propensities in legitimate objects for their exercise. Left to the mere impulses of nature, or perhaps trained to vice, his passions, by far the largest organs, took the lead; and his Firmness gave him that athletic and enduring frame which, assisted by large Hope, lent their powerful aid to fearful Destructiveness, Combativeness, and Secretiveness, producing that love of exercise and of action, and those venatorial predilections, which made him independent of the mutual offices of civilized society, and an irregular observer of the social compact. Firmness and Destructiveness produced that self-willed and infatuated vindictiveness which prompted the crime for which he suffered. Unchecked by sufficient Cautiousness, his superadded Combativeness, parent of sudden anger, hurried him into the committal of the deed which sealed his fate.

I have never seen a head more interesting to the phrenologist, or which is better calculated to illustrate and support the science.

After having delivered a lecture on this subject in Falkirk, in which I expressed the opinion that Millar's Benevolence was very inferior to the counteracting qualities, I was informed by persons who had known his character, that this was not true, and that he was very kind-hearted. But I must be permitted to remark, that the fact of singing songs, chatting, joking, and laughing within an hour or two after having committed a butchering murder, although evidence of large Firmness and Secretiveness, does not consist with powerful Benevolence; and that the acts of kindness which these individuals may call to

mind, were probably confined to his parents, teachers, relations, and friends, and are sufficiently explained by his large Veneration, Adhesiveness, Amativeness, and Love of Approbation. At the same time, in the absence of *exalted Destructiveness*, it is to be observed that the size of Benevolence is quite enough to have produced some traits of a humane description. I am afraid, however, these would not be frequent. From the irregularities in the shape of the head, I have stated the development in the coronal surface with some hesitation. At the same time, taking into account the extreme shortness of that region from Firmness to Causality, and the diminished length superficially of Benevolence, I do not conceive myself warranted in stating its amount higher than 15.

ARTICLE V.

ON THE UNKNOWN ORGAN SITUATED BEHIND IDEALITY.

(TO GEORGE COMBE, ESQ.)

SIR,

EDINBURGH, May 16, 1837.

IN addressing you, my presumption may perhaps be pardoned when it is considered that it is dictated by a sincere wish for the advancement and progressive improvement of that true philosophy of the human mind, of which you are the great and able living defender. Though I have been a considerable time acquainted with Phrenology, yet it was not till within a few months back that I discovered that that organ marked "uncertain" in the bust was very largely developed in myself. This attracted my attention very much at the time; but after two or three days' fruitless search after some unknown feeling within me, the curiosity roused on the subject quickly died away; and I had forgotten the circumstance altogether. In the beginning of this year, however, I happened to read a work on a subject which called forth an emotion, which I cannot describe in other words than as a curious feeling for the past, or a direction of the mind to what was gone by. This struck me as being perhaps the unknown feeling that some time before I had been in search of. But then, again, I remembered that some such similar feeling had been ascribed by some phrenologists to the still disputed faculty of Concentrativeness. The strength of that feeling in my own mind, however, was not at all warranted by the comparative size of the organ of Concentrativeness. There were other phrenologists also, who never men-

tioned such a feeling as being connected with the organ of Concentrativeness, among whom were yourself, and all the other eminent phrenologists. Seeing that this was the case, I resolved to make a few observations on the organs marked 3 and unascertained:

In the first place, I considered that the development of my own head favoured my opinion that that part of the brain whose functions were considered as unknown, was the organ of a faculty which gave the mind a tendency to look to the past.

I examined the head of an intimate friend also, whom I knew to be disposed to such a feeling. In fact, he was the only person I had known whose mind sympathized with mine in this respect. In him I found that part of the brain also largely developed. This gave me fresh confidence. And I made a few more observations, all of which tended to the same effect. I also watched the character of persons whom I had previously known as having the organ marked No. 3, large. There were three of them, and they were pretty constantly under my observation. I did not, however, discover any thing in them farther than that they all seemed to want a varied memory, or, in other words, when their minds were fixed on one particular object, they forgot every thing else; and also that they had a peculiar love for reading books over again which they had before read. Two of them had favourite authors, which they read once every month. This proved very satisfactory to me that your views respecting the organ of Concentrativeness were in accordance with nature, and also that the two feelings in question were quite distinct. For proof of this I may refer to Sir Walter Scott: Throughout the whole of his poem of *Marmion*, especially his introduction to the cantos, there runs a vein of reflection on the past, that has been called by the critics *good feeling*. From the first time that I read it, I have continually delighted in it. And so interested was I in it, that I learned pages upon pages of it without an effort. To give you an idea of what this feeling of the past, of which I have been speaking, is, I will extract the two following passages from the poem, as a specimen of that feeling with which it abounds:—

“ Eleven years we now may tell,
Since we have known each other well;
Since riding side by side, our hand
First drew the voluntary brand.
And though through many a changing
 scene,
Unkindness never came between;
Away these winged years have flown,
To join the mass of ages gone.
And though deep marked, like all
 below,

With chequered shades of joy and
 woe;—
Though thou o’er seas and cities
 ranged,
Marked empires lost and kingdoms
 changed,
While here at home my narrower ken,
Something of manners saw and men.
Though varying wishes, hopes, and
 tears
Fevered the progress of these years,

Still days, and weeks, and months but
seem

The recollection of a dream,—
So still we glide down to the sea
Of fathomless eternity.”

“Blackford! on whose uncultured
breast,

Among the broom, the thorn and whin,

A truant boy, I've sought the nest,

Or listed, as I lay at rest,—

While rose, on breezes thin,

The murmur of the city crowd,
And from his steeple jangling loud,
St Giles's mingling din.

Now from the summit to the plain,

Waves all the hill with yellow grain;

And o'er the landscape as I look

Nought do I see unchanged remain,—

Save the rude cliffs and chiming

brook,—

To me they make a heavy moan,

Of early friendships past and gone.”

I will now return to the object I had first in view in speaking of Sir Walter Scott, viz. that of shewing to those phrenologists who make this feeling *a part* of the functions of that organ marked No. 3, that it is distinct from Concentrativeness. For we find that Sir Walter Scott, upon your authority, was deficient in the organ of Concentrativeness. There can be no doubt that Sir Walter had the emotion of the past very strongly in his mind:—and to shew how I arrive with certainty at this conclusion, I shall again extract a few lines from his poem of Marmion:—

“An ancient minstrel sagely said,

Where is the life which late we led?

That motley clown in Arden wood,

Whom humorous Jacques with envy viewed,—

Not even that clown could amplify

ON THAT TRITE TEXT SO LONG AS I.”

If I may be allowed to speculate already on the subject, may it not have been such a feeling that led Sir Walter's mind back with such devotion to times and usages long gone by; and, perhaps, also gave him a taste as an antiquary.

What seemed to strengthen my opinion, that that part of the brain marked unascertained is the organ of a faculty which gives a tendency to the mind to look to the *past*, was the fact of its being immediately below another faculty, which gives to the mind a tendency to look to the *future*. At all events, my opinion respecting the functions of this organ is not inconsistent with its situation. I will now draw to a close this too long letter; I have merely suggested to you what I think is true. But observations and facts are still wanted; but I am content that the examination of the subject is in hands more able to pursue and investigate it than I can ever be. I am,
Sir, your obedient servant, J. K.

[P. S.—I may state that Gray's Elegy, and Burns's song of “Auld Langsyne,” seem to breathe the *very spirit* of the faculty, especially the latter.]*

* We have much pleasure in inserting this letter sent us by Mr Combe, and consider the views contained in it to be worthy of a careful examination.
EDITOR.

ARTICLE VI.

PHILANTHROPIC ECONOMY; OR THE PHILOSOPHY OF HAPPINESS
PRACTICALLY APPLIED TO THE SOCIAL, POLITICAL, AND COMMERCIAL
RELATIONS OF GREAT BRITAIN. By MRS LOUDON. London:
Christison. 1856.

A remnant of Edinburgh anti-phrenologists, whose cases are for life, struck, no doubt, with the sound practical wisdom which the phrenological writings deduce from a clear analysis of mind, and the relation of its faculties to the rest of nature, have imagined a new *formula* which is fast getting into currency:—"The phrenologists, in their boundless presumption, would monopolise all the *good sense* current in the world to themselves, and allow to no one else a particle of natural sagacity." On this notable charge we would observe, first, that it admits our possession of, and traffic in, good sense, which was long denied us; all forestallers and engrossers, commercially at least, not only possessing the valuable commodity monopolised, but possessing it abundantly; and, secondly, while we have arrived at good sense by a road entirely of our own, which has rendered it more demonstrable than any other, and decidedly more systematic and practical, we have not only not grudged the need of it to others who have come at it by other ways, but have uniformly hailed them as fellow-labourers in the same cause; and by applying our own test to their views, have made it matter of certainty that they were right; allotting them the more merit, just because, while we are aided by a powerful instrument, they reached the work by their own unaided sagacity. There would be more merit in surveying a field by the eye, though more accuracy in doing it by the theodolite. If the said clique would condescend to look into our books, now rather voluminous we grant for zeal of the temperance of theirs, they would find this spirit of fairness, and even favour, to "good sense" writers manifested in every page. This is answer too, to what is always, in such cases, at our opponents' tongue end,—"So! you admit that your science can be done without." We admit no such thing. We say this. Our science, by discovering and ascertaining the primitive faculties of the human mind, and the relation of these to external nature, has given us the means of *testing* good sense, and reducing it to a regular harmonious means of human happiness; while the merely sagacious writers had no such standard, and neither themselves nor their readers could have perfect confidence in the soundness of their views. Phrenological writers have received, in several instances, this tribute from writers of the na-

tural-sagacity character ;—that they, the phrenologists, were the first to give them perfect confidence in their own speculations.

Of this class is the talented writer of the work before us,—a work which would have given any *woman* a high place as a moral philosopher ; but, as the production of a woman, is not exceeded by anything in the language. *She* has written good sense from native sagacity ; she has got more than a haphazard glimpse ; she has commanded a systematic view of the moral fitness of things,—the true sources of human happiness. But we know, from herself, that when she came to read the phrenological books, which she had not done when she wrote, she felt, though not till then, with the power of demonstration, that what she had written was sound ; adding, with that modesty which graces real talents and merit, that had she read the phrenological philosophy first, she would not have *dared* to have written at all. Every phrenological reader of our fair author's work will rejoice with us, that she was not a phrenologist when she wrote her "Philanthropic Economy,"—and that her modest declaration itself may be taken as an avowal that she is a phrenologist now. We hail her accession to the good cause. These are converts worth having. The lamented Dr Maenish, our readers know well, was another such.

In applying to the general plan of the work before us the test of the phrenological philosophy, we may observe, that if it be only the phrenologist who is qualified *fully* to appreciate the author's views, it is not matter of wonder that they are understood and appreciated to so limited an extent by an unphrenological public, as not to have had nearly the circulation, or done nearly the good to which they are entitled, and for which they are calculated. They are far above the practical apprehension of the mass of an age of which a mere handful know what are the primitive faculties of man, with the relation of these to the creation of which he forms a part ;—a knowledge which has thrown a flood of light upon the moral world, which was previously as dark and inscrutable as the physical world was clear and harmonious. "Philanthropic economy" is a position too high for the age ; which, moreover, is yet without means to mount up to it. It is a tower's top without ascending steps,—a mountain's summit without a practicable slope. It is read, imperfectly understood, much admired, considerably distrusted, perhaps pronounced utopian (an invaluable and easily pronounced word to many), and forgotten. We can name a work which will supply the desiderated slope to its elevation ; and we deem the *previous* study of *that* work so important to the due impression of *this* before us, that we counsel the author herself to recommend it in her next edition ; we mean Mr George Combe's "Constitution of Man in relation

to external objects." Upon the mind deeply imbued with the truths in the "Constitution," every sentence of Mrs Loudon's "Philanthropic Economy" would tell with a lasting practical effect; which it never has done or will do upon a mind not so prepared.

The author, prompted by the workings of her own moral faculties directed by a fine intellect, feels as well as sees that selfishness is not wisdom, either individual or social; but that benevolence and justice, summed up in the scriptural precept "Love one another," and its convertible term "Good will to all," is the only stable foundation of social happiness. Based on this principle, she infers that that disposition of things called the Economy of Society,—etymologically, the rule of its house,—which has hitherto been a term confined to the means of accumulating wealth, and then called Political, should be more extensively named Philanthropic Economy. The object of this is to increase, to the utmost amount of human power, the general happiness; beginning with the removal of misery from millions of the poor, ignorant, and helpless, by a right application of benevolence and justice to their condition, and the communication to them of the power of improving themselves by what she calls "an universally spread education." She urges upon the world the serious consideration of the views she offers; and combats the notion that they are abstruse and political. She submits "opinions which, if universal, would cause happiness to become a habitual sojourner among us; yet which are so simple in their truth, so capable of recommending themselves by their own symmetry and beauty, that they are independent of ability on the part of those who advocate them, and need but to be fairly represented to be embraced with enthusiasm by every human being who possesses a mind neither warped by self-interest nor devoid of understanding."

The phrenologist, who knows the faculties and their related objects, at once sees this to be practical wisdom, and not as it will probably appear to others, mere sentimentalism. If it were a mere sentimental theory, it would follow, first, that the moral faculties were given to man in vain; and, secondly, that Christianity, which requires even more, is a sentimental theory also. He knows that benevolence and justice, which delight in brotherly love, good will, and equal rights, are not virtues to adopt or not as we please, but actual innate human faculties as much as the five senses; that they are, moreover, the highest in rank in the human constitution; that they were given to be exercised; and that the pleasure of exercising them must be in proportion to their supremacy. He looks around in nature and sees human civilization and consequent happiness keeping a marked pace with the operation of these two faculties, and barbarism and

misery widely spreading under the reign of the lower or selfish feelings. That, in short, it is in the moral world rightly understood that the highest happiness is to be found; that it is not broad enough to say that *honesty* is the best policy; the maxim is more extensive, benevolence, or as the author says, "brotherly love, good will to all," is the best policy. This is capable of demonstration, but one too lengthened for this short paper. The principle is fully evolved, as based on experience and facts, in "the Constitution of Man" already referred to.

The author gives her view of the causes of human happiness in an able and eloquent exposition in the outset of her work, which she terms the "Philosophy of Happiness;" and announces her plan to be, to test, in the sequel, several existing institutions and customs by the principles which she has laid down. Her dedication is striking:—"To every human being on whom God has bestowed the gift of reason, this earnest appeal to reason, to justice, to honesty, to pure morality enforced by sacred obligation, to every noblest sympathy of humanity, is, with ardent feelings of good will to all, inscribed by the author." We give her introduction entire. "A short preliminary view of that system of morals traceable in the works of God, and to which the writer has ventured to give the title of the Philosophy of Happiness, is attempted in the first chapter of this little work, for the purpose of making it manifest to the understandings of all who will but look calmly at existing facts, that almost the whole of the evils under which mankind suffer are caused by the abuse of free-will, which consists in neglecting to frame our artificial social circumstances (that is those arrangements which depend on exertions of free will, such as the laws and voluntary customs of men,) on the model of our natural social circumstances, that is of those states of being and mutual relations which are arranged for us by that portion of the laws of God which we commonly call the laws of nature, and over which neither individual nor collective free-will has any control: while those laws being practically revealed (in their very operation) directly from God himself to each individual, in each individual's own nature and natural circumstances, the sacredness of their sanction cannot be contested; by which means, if we make agreement with those laws, which we thus know to come from God, the Test of Right, in framing laws and customs to be instituted by man—a standard of moral and legislative truth which cannot change, and which is acceptable to the humblest christian, because in perfect accordance with scriptural precepts, yet which compels the assent of the boldest sceptic, because the sources of its sacred authority are perceptible to the senses, is obtained, to be applied to the various laws and institutions, which it is intended in the body of this work to discuss separately.

"An effort to trace and press the practical application of such a standard, however insufficiently executed in the present instance, is at least not an uncalled-for impertinence, nor as the writer might else have feared, an insult to the common sense of the civilized world, as long as we have moral writers who, even while they recommend pure morality for the happiness it brings, would seem (perhaps unintentionally) to deprive it of its sacred sanction, by declaring "right and wrong, ought and ought not," mere "*ipse dixit*," to be refuted with a "why."* And again, while we have authors of the first respectability,† and best intentions, even in pleading the cause of justice, using such expressions as: "But whether it can be proved or not to the satisfaction of every one, by the evidence of natural or revealed religion, that the Creator does will the greatest attainable happiness of mankind in this world,"—and again,—"putting aside all notion of a moral sense, whose existence is yet matter of dispute."‡

"And while, again, we have sincere Christians, deeming it piety to reject the important visible witness of natural religion, and even solemnly denying its very existence, and others equally well-meaning, speaking of morality (the fruit, to produce which God planted religion) with comparative scorn, as a mere code of ethics, and pressing on their hearers with enthusiasm, as vital religion, they know not what! some vague abstraction which they designate "a saving faith," while, in the wildness of their fanaticism, they pronounce good works "filthy rags;" and the use of God's sanctifying gift of reason, in the discerning of moral and religious truth, (the holiness and happiness producing purpose for which that reason was given) presumption! And while, on the other hand, we have hosts of licentious infidels scoffing at scriptures, at records, at documents, at miracles,—in short, at every evidence which comes to them through the medium of man, and demanding demonstration, such as must compel the assent of their own understandings through the

"The Utilitarians.

† Scrope on Political Economy.

"To doubt that God wills the greatest attainable happiness of mankind in this world, is to doubt that God wills moral order; for moral order perfected must produce the greatest attainable happiness of mankind both in this world and in the next. Again, to doubt the existence of the moral sense, is to doubt the justice and goodness of God; who, had he not given the moral sense, had left all whom scriptural revelation has not reached in total darkness. While to doubt the divine authority of the moral sense, is to doubt that God created the organization, and ordained the natural circumstances of man; for these produce the moral sense, and are calculated to produce a just moral sense, though artificial circumstances, aided by abuses of free-will, often warp that moral sense.

"It is far from being meant by these observations to infer that Mr Poulet Scrope doubts of these matters; on the contrary, that liberal and amiable writer distinctly asserts his individual belief in the benevolent designs of Providence; he, therefore, is only appealed to, as good authority that such doubts do prevail."

medium of their own senses before they will submit to any restraint—even conscience and the moral sense being, in their estimation, in consequence of their rejection of scriptural revelation, and their neglect of natural revelation, but results of the forced or artificial associations of early education.

“And yet, again, while we have legislators not ashamed to put supposed expediency before moral rights, and others mad enough to found all social rights on mere convention, surely a standard of moral, social, and legislative right and wrong, possessing the sacred sanction of bringing its visible credentials with it, direct from God himself, home to the senses and reason of every individual being, would appear to be, notwithstanding its obvious foundation in the nature and natural circumstances of man, still a desideratum in morals and legislation. While the precepts found in scriptural revelation, and the precepts deduced from natural revelation, being in perfect harmony throughout, instead of the one sacred sanction being thus lost or endangered, a second sacred sanction is added, which, even by those who feel it to be unnecessary, must be allowed to be at least not injurious to the cause of truth.

“To conclude, the following preliminary chapter, though consisting of but a few pages of the simple manifest truths alluded to, shall, for order’s sake, be divided into three parts.

“1. The Statement of the Theory of the Philosophy of Happiness.

“2. The fundamental proposition of that theory established.

“3. Inferences drawn.

“After which the body of the work, entitled “Philanthropic Economy,” shall consist of the practical applications of the standard of right and wrong thus obtained, to the abuses of existing institutions, and the remedies which those abuses demand.

“Explanation of Terms.”

“When it is intended to distinguish God’s written will from God’s manifested will, the expressions “Natural Revelation,” and “Scriptural Revelation” are used in preference to Natural Religion, and Revealed Religion; because the latter phraseology, though usual, falsely infers that what God has been pleased to shew us is not so much a revelation as what God has been pleased to tell us. The expression, “Natural Social System,” is used to imply all those laws of God determining our nature, mutual relations, natural circumstances, and natural capabilities which we commonly call the laws of nature, and which the Creator has not been pleased to give free-will, whether individual or collective, any power of modifying.

“The expression, “Artificial Social System,” is used to imply all those arrangements, such as the laws, customs, and ac-

tions of men, with the use or neglect of the natural powers, and of the light of reason and revelation which God has been pleased to leave to the option of free-will, either individual or collective."

In "The Philosophy of Happiness," which forms the first chapter, the author's object is to trace benevolence, wisdom and power, willing, planning, and executing the extension of felicity by means of moral order, in all the phenomena of mind and matter,—to infer thence the being, attributes, and will of God, and to demonstrate that the abuse of his own faculties by man, called by her the abuse of his free will, is the only break in the harmony of nature. Man's duty and interest are thus made manifest; and these views are shewn to be confirmed by the beautiful coincidence of God's will, visibly revealed in his works, with his will scripturally revealed in his word. We consider the following "statement of the theory" to be so clear and elegant, that we cannot withhold it from our readers.

"We see all nature governed by laws, all those laws tending to one end,—that one end the extension of felicity. Hence we infer a first cause, powerful, intelligent, and benevolent. Powerful, because we see all nature obeying these laws. Intelligent, because all these laws act in concert, tending to one end. Benevolent, because that one end is good or happiness.

"Having traced benevolence willing the extension of felicity, as the great first cause, or originating principle of all things, and thus recognized the Almighty purpose of creation to be the extension of felicity, we dwell especially on the nature and natural circumstances of man; and we perceive them to be so arranged, that moral order is the only means by which comfort or happiness in this life, and the perfecting of those sympathies and powers necessary to render the soul of man susceptible of felicity in a future state, can be attained. We see also freedom of will to be involved in the extension of felicity, and yet to involve the possibility of moral evil; but that to incline and all but compel free-will to choose moral order and consequent happiness, God has not only given man reason, or the power of judging between good and evil, but also arranged all things within, as well as around man (except still abuses of free-will), to point uniformly to the production, by natural causes of the moral order thus necessary to happiness: insomuch, that to depart from this moral order, man must so abuse free-will as to contend with every sympathy which can be traced to a natural origin, distort his artificial circumstances, so as to make them (in the formation of his sympathies) balance against, instead of weighing with, his natural circumstances, and refuse to cultivate, or when cultivated, shut his eyes against the light of reason, displaying to him his own manifest interest, temporal and eternal.

"From all this accumulation of visible evidence, we perceive that it must be the will of God, and that it certainly is the interest of man, that the free-will of man should co-operate with the good will of God, thus clearly manifested by this uniform tendency of all that God has retained under the dominion of his own absolute laws.

"We also perceive that this visible revelation, by shewing man the will of God, points out, not only man's duty to God, but also his duty to his fellow-creatures and to himself; for that, as soon as we perceive happiness to be the purpose of God's creation, and moral order to be the appointed means of spreading and perfecting that happiness, obedience to the laws of moral order becomes a debt, strictly due not only by all to God, and by each to himself, but also by each to all, in virtue of their mutual dependence, as parts of one creation having for its object one purpose—the happiness of all.

"And that thus the perfection of moral order necessary to happiness may be always tried by the test of equal justice, for that whether it be from impiety, from short-sighted selfishness, from unkindliness or from indolence, that a man is unwilling to pay, or by wilful ignorance, by intemperance, by extravagance, or by ill-regulated tempers and affections, that he render himself unable to pay to the uttermost farthing, the whole debt of relative duties, which he thus owes to all his fellow men and to himself, it is evident that by such abuse of free-will he is guilty of injustice towards every being who loses any portion of possible happiness by his means, including himself, as well as of rebellion against that God who wills the happiness of all.

"Thus, as we cannot doubt that what we see God has done, he must have willed to do, we find that we have, in the visible arrangements of nature, especially man's own nature and natural circumstances, thus pointing to the production of felicity by means of moral order, an infallible test of right and wrong, in all things, from the functions of governments, down to the most minute details of our private social duties, revealed directly from the Creator to each creature on whom he has bestowed the gift of reason; and that it is only by that abuse of free-will, which consists in not cultivating reason, or when partly cultivated, not applying it to the great purpose for which it was given, the perfecting of the moral sense, that we can err, and by erring fail of attaining happiness.*

"We go on to scriptural revelation, and we find its plain precepts:†—'Thou shalt not kill—Thou shalt not steal—Love as brethren, be pitiful, be courteous—Do unto others as you would that they should do unto you,' in exact conformity to this natural revelation or manifested will; and, therefore,

* See Natural, Mental, and Moral Philosophy.

† See the Bible.

we perceive (without waiting to go into any other evidence), these precepts to express the will of that Creator, in whose works we find the same will manifested. Nor is the sacred respect due to those other evidences so ably set forth in the writings of our pious divines, and so authentically collected from inspired sources, lessened; on the contrary, it must be, and is, infinitely heightened, by our deriving this, still the strongest assurance of our faith, from this visible witness of the truth, ever present with us—this universal covenant, thus ever being renewed, directly from God to each new generation of men. While, by having this unchanging standard to refer to, in God's visible revelation of what is his will, which, speaking the language of facts, requires neither translator nor commentator, the consciences of thinking men are relieved from the apprehension that they are called upon to take any other fallible mortal's exposition of the written revelation of God's will: on the contrary, they feel assured, that where their own or any other mortal's exposition of God's written will would make scriptural revelation to differ from visible revelation, that exposition must be wrong; for 'God cannot lie'—practically in his works. Yet this enlightened liberty of conscience, instead of creating divisions in religion, must secure union; for those who have but one written will of God, had they also but one expositor of that written will, that expositor the visible will of God, how could they hold other than one faith? Nay—thus would the will of God be not only made the rule of life—but, what that will is, be made manifest to the boldest sceptic, by the witness of his own senses!

"This theory of the philosophy of happiness will be found, when explained, to ask no concession on which to base its inductions, but to refer us to eternal facts recorded in the book of nature, especially the nature and natural circumstances of man himself, therefore open to the perusal of all who will read. While, in the continuing course of nature we behold—like the apparition of the hand on the wall at Belshazzar's feast—not only the writing; but we see the writing being written."

Before entering into the details, or making the application of this simple and noble theory, consisting of religion, morality, and legislation, in their natural and indissoluble union, which she calls the Philosophy of Happiness, the author proceeds to obviate five exceptions, and does so ably and successfully. We can only afford space to enumerate these exceptions.

"1st, The permission of moral evil.

"2d, The permission of physical evil.

"3d, The formation of the moral sense being traceable to natural causes.

"4th, That there are parts of the material universe which do not convey any moral lesson.

"5th, The diversities of the moral sense."

Thirty pages follow of "inferences drawn;" and we recommend a diligent perusal of these to every phrenologist; for they are in perfect unison with the ethics of our science, namely, the right use and exercise of the faculties of Benevolence, Conscientiousness, and Veneration. The author eloquently claims for the social system, as the duty of individuals and communities, that use of *reason* which shall produce "moral order, and a good-will-producing organization of the artificial social system." The following passage, indignantly protesting in favour of the use of reason for the promotion of good will to all, we have not any where seen exceeded in force and beauty:—

"But, as there are not a few well meaning persons, who would dispute the use of Reason as a means of acquiring any virtue acceptable to their Maker, and who, in their erroneous zeal, exclaim, 'Humble human reason; lay it in the dust; it is sufficient for man to obey;—it will be necessary, before we proceed further, to meet this objection by endeavouring to shew, that the madman, who, in the conduct of the ordinary affairs of life, should shut out the rays of the sun, and lay him down in darkness awaiting a supernatural illumination, by the help of which to perform his daily avocations, would not be more mistaken than the man whose misjudging piety is alarmed at the mention of Reason, that sun of the intellectual horizon, that emanation of God's own spirit, that highest gift of God, as a guide to truth, or to that moral order, generating good will, which that very reason recognises to be the visibly revealed will of God; miscalling such use of reason 'presumption,' or 'self-trust;' as though that self, they deem it humility to despise, were not the work of God; as though the gift of reason, they deem it presumption to use, were not as much a gift from God as the gift of grace they deem it humility to implore; as though the gift of reason were not a gift of grace offered to all; as though the gift of reason, applied to tracing the will of God, and inclining free-will to co-operate with that will, were not the very spirit of God himself, 'working in us both to will and to do of his good pleasure;' as though true humility of spirit were not rather shewn in diligently using the means which God has given, for the end which God has ordained, than in rejecting, or despising such, and demanding, or awaiting, in a species of, at least, passive resistance of God's will, a further gift. Nay, do we not blaspheme when we pronounce God's gift of reason useless, and insolently call upon him, as it were, to amend his own imperfect work, and give us a further gift of grace? Yet, such is the desperate presumption of mistaken piety!!!

"That this unreasoning obedience, however, is not the 'reasonable service' called for in scriptural revelation, is abundantly proved by the promises of reward, and denunciations of punishment, proclaimed in Scripture: for these must be allowed by all who believe Scripture to be the word of God, to be appeals of God's word to the reasoning or comparing powers of man."

The author assumes in the very outset, the foundation of what she rightly says may be enforced, while brotherly love cannot, equal justice to all, in human conduct and human institutions. She then, in perfect agreement with Mr Combe's reasoning, which she had not seen, shews that the *avoidable* ills of life result from the abuses of free will (the faculties) individual or collective; "whilst a just or good-will-producing organization of the artificial social system, and the universal diffusion of a reasoning, or practically religious education, are the only human means of co-operating with the visible will of God, namely, the extension of felicity, temporal and eternal, by means of moral order." Some justly severe observations follow, upon the criminal selfishness of the few who would enslave the many in body and mind; and would "keep the mass" ignorant, the better to continue their bondage; with some admirable reasoning respecting the impious doctrine, that there can be any of God's creatures gifted with reason and feeling, without being entitled to use them. The *use* of the many by the few in war, is powerfully denounced. The mischievously erroneous divorce of morality from religion, is condemned in these powerful terms:—

"How much, then, have they to answer for (the self-styled learned), who, while contending with unchristian fierceness for the interpretation of tortured phrases, and the explanation of mysteries too high for man, which, not being necessary to the conduct of life, God has not been pleased to place within the reach of mortal ken, have left the unlearned, in all the helplessness of their ignorance, to suppose that it is the truth itself which is matter of doubt; till pure morality, thus fatally deprived of its sacred sanction, is divorced from what calls itself religion; and the vesture of holiness, which was woven without a seam throughout, being thus forcibly rent in twain; the one part appears a vague abstraction without an object; the other, a system of restraints unenforced by any sufficient sanction; and both, therefore, are by too many bold spirits flung aside, and utterly forgotten. Whilst others, timid and well-meaning, but unreasoning beings, choose what seems to them the better, because the easier part; and, from the cradle to the grave, lull their every faculty, and paralyse their every energy,

by partaking copiously of that dangerous moral opiate—faith without works.

“ If instead of either of these monstrous errors, very babes and sucklings were instructed to repeat the simple, practical, precepts of the word ; and as their understandings opened, given, for the only expositors of that word, the works of God, and his attributes and purposes from his works inferred, the contemplation of truths thus sublime and unchangeable, yet made visible, must, ere long, teach the whole world to know, that ‘ Faith without Works is dead indeed ;’ and that, if there be a blasphemy in faith, distinct from works, it must consist, not in doubting, but in believing any dogma which ascribes to the Great Author of all, the beauty, order, and harmony of nature, decrees or purposes incompatible with his own revelation of himself, visible in all his works ! Remembering always, that what unreasoning, therefore, irreligious men call the prudence of experience, is entitled to a higher sanction, and a better name—for, that effects necessarily following their natural causes, as ordained by the Author of Nature, is the language in which God, from his throne in Heaven, addresses the dwellers upon earth ; and, therefore, that the reverential noting of these causes and effects with a view to the direction of conduct, is an essential part of reasonable practical religion.”

The author concludes with maintaining, that all should study what she calls the “ social science,” in all its branches, public as well as private, to fit them for doing the duties of their place in society ; whether wisely to make laws, or intelligently and willingly to obey them. The doctrine of the nice balancing of selfish interests, as a social foundation, is also ably exposed, and the chapter on the Philosophy of Happiness is thus eloquently wound up:—

“ Also, for an enlightened and unanimous public opinion to obtain unaided, in the first instance, by a favourable organisation of the artificial social system, many precious years might yet be lost in individual efforts to dispel the mists of ignorance ; and when those mists were at length dispelled, a struggle, though ultimately a successful one, might still await the cause of honesty. Let then, whosoever may be in authority when these lines shall meet their eye, if they would be the benefactors of mankind ; if they would accelerate, perhaps by ages, the advent of virtue and felicity ; if they would be the vicegerents of Almighty benevolence ; if they would not ignobly wait to follow in the train of the glorious victory over pride, avarice, ignorance, prejudices, selfishness, and misery, which, they have been appointed to lead on ; let them cast from them for ever, yet another of the boasted balances of the

days of misrule; namely, the morality-lowering, misery-deepening expedient of balancing, not only influence against influence, but wrong against wrong, monopoly against monopoly, in short, unjust actual money gain against unjust actual money loss, and deal out to all men, parties, and interests, equal justice fearlessly; that is to say, sweep away at once every monopoly, restriction on trade, interference with industry, or partial privilege whatsoever, and commute every tax, direct and indirect, for one direct tax on realized property. At the same time lending the arm of power, to the diffusion among all ranks and classes of men, of an education* calculated to lead the reasoning powers of every individual to recognise the Almighty purpose of creation to be the extension of felicity, by means of moral order, and to perceive the portion of that purpose, which it is the duty, and for the happiness of each, to co-operate with all in fulfilling.

"To conclude, then, the philosophy of happiness may be defined; religion, morality, and legislation made one, by that good will to all which necessarily includes equal justice and active benevolence, and which is found, visibly revealed, in all the works of God.

"And, as well might we sunder the living frame of man, and expect the several portions to perform their functions apart, as break this unity of the will of God, and hope the attainment of felicity, either temporal or eternal, from any less connected views of religious, moral, and social obligation."

We much regret that we cannot do more than recommend the perusal of the twenty-one other chapters of which the volume consists, in which the sound, ethical, and essentially philosophical, views of the first chapter on the Philosophy of Happiness, are applied to settle many warmly contested social questions; such as the rights of the labouring and wealth-creating classes,—the sources of national wealth,—the cost to the nation of monopolies, protection, and forced production,—the bread monopoly,—the evils of indirect taxation,—the family monopoly, or law of primogeniture,—poor laws for Ireland,—the appropriation clause in the Irish Church question,—power whether to be vested in the hands of the few or the many,—pure representation,—hereditary legislation,—parliamentary duration,—the ballot,—the responsibility of voting in parliament, &c. The author in all these discussions keeps steadily in view her principle of equal rights and good-will to all, and as she cannot take better guides, she sees her way clearly wherever she goes. On the whole, we warmly recommend this

* Among means to this end, the establishment of the National Model School, recommended by Mr Smith in his "Suggestions on National Education," would be very beneficial.

unpretending yet powerful volume to general attention. It is a valuable offering to the cause of the philosophy of benevolence, now begun to be treated by writers as a reality, in volumes which, like this, will displace much fine writing of the old metaphysicians and moralists. Above all, we would recommend the work to our "good sense" friends formerly alluded to, and congratulate them on so powerful an inroad on the Phrenological Monopoly.

ARTICLE VII.

WHAT ASYLUMS WERE, ARE, AND OUGHT TO BE; BEING THE SUBSTANCE OF FIVE LECTURES DELIVERED TO THE MANAGERS OF THE MONTROSE LUNATIC ASYLUM. By W. A. F. BROWNE, Surgeon-Superintendent of the Montrose Asylum, &c. Edinburgh: A. & C. Black. 1887.

GREAT social improvements seem destined to be attained only by successive efforts at different intervals of time. The public mind, exhausted by long-sustained exertion, ceases to take an interest in subjects on which it was formerly intent, and it is only after a long rest, after perhaps the lapse of years, that, urged on by the irresistible strength of slowly accumulated individual labours, it is again roused from its lethargy, and passes the gulf which separates it from the pilot-minds which have preceded it. In the progress of all institutions, in all the branches of human knowledge, whether religious, scientific, or political, stages are discernible, at each of which, perfection has been by some supposed to be attained, while others of more penetrating minds, looked upon it as but an additional step in the race; another resting place at which to acquire new vigour, to recommence the onward and apparently indefinite career of improvement.

In the history of the healing art, scarcely one of the successive ameliorations which have brought it to its present state of comparative perfection, is more remarkable or more gratifying to the philanthropic mind, than the "reformation" in the treatment of the insane, which may be said to have fairly commenced in this country about the year 1815. Before that time it was defective and barbarous to a degree which it is now very difficult for us to conceive. Judging from the results of cruelty and neglect, the public adopted the belief of the incurability of insanity, and even now a general impression of its intractability prevails. To those who still labour under this notion, we earnestly recommend the perusal of the third and fourth chapters of the interesting volume under review. They will there discover the

causes of that apparent incurability, and find proof of its being amenable to rational and enlightened management, in the simple fact, that, in spite of the atrocious manner in which asylums were formerly conducted, cures were nevertheless far from uncommon; and perceiving, too, how greatly the number of cures has been increased by the obvious, but still imperfect improvements which have been adopted, they may form some conception of the success which may be expected from every future addition to the efficacy of our treatment.

The medical reader may, perhaps, think that the harrowing details in the third chapter might have been spared; but he must recollect that, although the scenes described are familiar to him, and are now, we hope, gone for ever; they are not equally well known to the public, by whom, since the excitements occasioned by the parliamentary investigations, has to a considerable extent subsided, they have been almost entirely forgotten. We conceive, that any blame which now attaches to the management of asylums, must in a great degree be borne by the public, that portion of it in particular, which is intrusted with the funds, appropriated to the maintenance and improvement of these institutions. Neither can the relations of the insane be allowed to escape without a share of the blame. Already have medical men, both attached and unattached to asylums, testified not only their willingness, but their ardent desire, to assist in the furtherance of the system of treatment. The chief obstacle seems to have been the difficulty of convincing those under whose control they are required to act, of the necessity of the various improvements. Another impediment of not less magnitude, has been the want of a cordial co-operation on the part of the relations of the insane. The difficulty of inducing them to consent to the removal to asylums, and the early employment of effectual treatment, in short, to recognise the existence of disease, has been often insisted on in practical works. Less has, however, been said of the frequent necessity of their co-operation during the progress of the malady. In some cases they persist in intruding on the patient when their presence is certain to be fraught with evil consequences, but much more frequently the patient is left in a state of utter desertion, when intercourse with sane individuals might be of the most essential service.

Mr Browne has laboured, we think with success, to put what we know in the various divisions of the subject into a shape, attractive at once to unprofessional and professional persons. In this he has acted with much good sense, as he will thus be more successful in reaching and impressing correct ideas on the minds of those on whom the important trust of regulating asylums, and the condition of the insane, whether in asylum or not, has been devolved. By the opportunities which he possesses,

as medical superintendent of a public asylum, Mr Browne is well qualified for the task which he has undertaken. Of the acuteness with which he can examine the intricacies of mental affections, our readers are already able to judge from several excellent papers by him, which have appeared in former numbers of this Journal; and, in particular, a series on religious insanity, the illustrations of which were derived from patients in the institution now under his care. To our readers it will also be a recommendation, that the doctrines contained in these lectures have been based, as far as possible, on the principles of Phrenology. On this point we shall lay before our readers Mr Browne's own remarks.

"A large portion of the volume refers to the past, and is necessarily occupied with historical details: that portion which refers to the future I have as scrupulously as was practicable collected and collated from the writings and opinions of others: and when presenting a synoptical view of the different forms under which mental disease may appear, I was indebted rather to the science upon the principles of which that arrangement was founded, than to any peculiar views or philosophical analysis of my own. To those who are acquainted with the doctrines of Phrenology, the extent of my obligations in this particular case, and throughout the work, will be readily recognized; and to those who are still ignorant of these doctrines, I have to offer the assurance that Insanity can neither be understood nor described, nor treated by the aid of any other philosophy. I have long entertained this opinion: I have for many years put it to the test of experiment, and I now wish to record it as my deliberate conviction. While, however, I have constantly availed myself of the principles, I have avoided the phraseology of the science, first, because my original auditors were not, and my readers may not be phrenologists; and, secondly, and chiefly, because my object was not to advocate or promote particular truths, but to employ and apply these in the elucidation of the object in view, and thereby to place in as clear, and conclusive, and acceptable a manner as possible, the noble cause which I have undertaken."

In his first lecture, Mr Browne enters into an examination of the preliminary questions of the nature, causes, and definition of insanity, and the classification of its different species. The connection of insanity with the brain is shortly explained, and the attempts to include all its different varieties within the narrow limits of a definition reprobated; and believing an accurate description of the different kinds of insanity to be of much more practical value, Mr Browne proceeds to lay before the reader the leading features of these. In most of the nosological arrangements which have been made, the chief defects have been

either their cumbrous minuteness and fine-spun distinctions, or their vague generality. The first attempt to form a regular nosological table on phrenological principles, so far as we are aware, is that of Mr Browne. It appears to include all the species generally met with, each of which will be immediately referred by the phrenological reader to its appropriate cerebral seat; but there are phenomena which it is still difficult, by any method of analysis, to refer to their organic causes. The following is

THE AUTHOR'S ARRANGEMENT.

- I. Idiocy. Non-development of faculties.
 - 1. Gradation. Non-development of all the powers.
 - 2. External senses developed.
 - 3. A propensity or affection developed.
 - 4. An intellectual power developed.
- II. Fatuity. Obliteration of Faculties.
 - 1. Partial. 2. Complete.
- III. Monomania. Derangement of one or more faculties.

SECTION I.

- 1. Satyriasis. 2. Homicidal and destructive. 3. Proud.
- 4. Vain. 5. Timid. 6. Cunning and suspicious. 7. Religious and superstitious. 8. Desponding and suicidal. 9. Imaginative.
- 10. Avaricious. 11. Benevolent or affectionate.

SECTION II.

- 12. Incapability of perceiving relation of ideas.
- 13. Incapability of perceiving relation of external things.
- 14. Incapability of perceiving qualities of external objects.
- IV. Mania. Derangement of all the faculties.
 - 1. Mania with increased activity.
 - 2. Mania with diminished activity.

The remarks on the third division, monomania, are interesting, and illustrate the doctrine which so much pains has been taken to inculcate; that the same fundamental faculty may form the leading characteristic of individuals widely distinguished by their actions.

A question of much importance at the present time is, whether insanity has increased with the progress of civilization. This question has been much agitated of late years, and much alarm excited in the breasts of those who entertain the hope that civilisation will banish many of the evils which have hitherto afflicted mankind. It is difficult, amidst many conflicting statements, and in the absence of positive data, to form an opinion; but it seems certain, that, although many accounts of the in-

crease have been much exaggerated, there is no reason to doubt that insanity is more frequently met with among civilized men, than among savages. It does not appear, however, that the ratio corresponds exactly among civilised nations, with the rank which each is supposed to hold in the scale. It would be strange, indeed, if those who are much exposed to the exciting causes of a disease, did not present cases of that disease more frequently than those who are less exposed. In that state of society which is now termed civilized, the sources of mental excitation and disease are almost beyond computation. "The occupations, amusements, follies, and above all, the vices of the present race, are infinitely more favourable for the development of the disease than at any previous period. We live under the dominion of the propensities, and must pay the penalty for so doing: and madness is one of these. There is one feature which has often struck me in examining tables of the causes of insanity in reference to the matter under discussion. One-half of these is resolvable into crime, follies, and ignorance. If we consult Esquirol's Table, published in 1835, comprehending 1557 cases, and exclude 337 instances of hereditary taint, as the exciting circumstances under which this burst forth are not noted, it will appear that 579 are attributable to the excess or abuse of the passions, or to the weakness of the uneducated intellect.*"

It is not, then, from the legitimate employment of our minds that the disease derives its origin; but from the abuse of our powers, especially the animal propensities. As the dictates of sound morality and physiology come to be listened to, which, however, they will not be till the adoption of a more rational system of *moral* as well as intellectual education, for hitherto our moral has not kept pace with our intellectual improvement, and even the latter has not been very general, there is reason to hope, then, that this scourge will be less severely felt. And this hope is cherished by the symptoms now evident of a tendency in the people themselves towards the improvement of their moral condition.

Mr Browne's observations on those external circumstances which have an influence on the occurrence of insanity, possess so much interest, that we cannot refrain from laying them before our readers. "The assertion of the greater prevalence of mental disease under free than under despotic forms of government, may be treated in the same spirit as that displayed in examining the alleged connexion of insanity with civilization. I admit the fact, but deny the inference. Tyranny has no protective influence—liberty is not the foe of mental health. Consumption has

* Annales d'Hygiène Publique, Janvier 1835.

doubled its ravages since the use of tea prevailed, and cholera has invaded the country since the passing of the Reform Bill; and these facts have nearly the same connexion that the prevalence of insanity has with the nature of the constitution under which a people lives. But although the form of government which, it will be observed, is generally the result and representation, and not the cause of the existing state of feeling, exercises no influence in the production of insanity, the mode in which it is administered, the social relations, the tranquillity or fluctuations in the habits, value of property and rank, the degree of prosperity, and the moral and religious condition which arise out of it, must obviously do so. In that state, then, be it monarchical or republican, in which the sources of moral agitation and excitement are most abundant, will the proportion of insanity be the highest. Panics in the commercial classes, civil commotions, war, rapid influx and reflux of wealth, and ambitious projects, which are the most fertile and frequent moral causes of the disease, may occur, and have occurred, under every form of government, and affect mankind, not because they are slaves or citizens, but because their bodies are weak and vitiated, their minds excitable and ill-balanced. A state in which wide-spreading changes did not and could not take place, would afford, to a certain and great extent, a guarantee against madness. Were despotism another word for tranquillity, and freedom for turmoil, the line of exemption would be clearly defined. But public order and disorganization, although undoubtedly favoured by political relations, flow more from the character than the actual condition of a people, and accordingly affect indiscriminately the bond and the free. Thus the free American is comparatively more liable to derangement than the free Swiss;—cretinism is, of course, excluded from the comparison. The enslaved Turk is exempt; the conquered Hindoo liable. The act of liberation, however, is certainly inimical to mental peace. It operates, like all other great political movements, by powerfully affecting the interests of the mass, by calling forth the deepest sympathies, the most ungovernable passions of the human breast. The French Revolution is said to have filled the asylums to overflowing. The immediate effects of the Crusades, the Reformation, and the retreat from Moscow were similar. These statements, from the remoteness or the peculiar character of the periods to which they refer, are necessarily vague and unsupported by proof. But on turning to the Irish rebellion, the traces and history of which are still fresh and before us, we find from Hallaran that of 698 cases, 108; or nearly one-seventh, were produced by the terror, the hostility, and the hopes then prevailing.*

* Hallaran on the Causes and Cures of Insanity.

"The number of lunatics is said to be much greater in America than in any European country. Can this be the effect, it has been asked, of the acquisition of independence, or of the operation of the constitution under which the people live? I am disposed to believe that a concurrence of causes may have produced this result. First, the abuse of ardent spirits, and especially dram-drinking, is reported to prevail to an awful and destructive extent. Secondly, money is gained easily and rapidly, and the abject and the ignorant become suddenly rich, without becoming better or wiser; the means of enjoyment thus increase more quickly than the means of moral training, and there are the effects of unexpected prosperity, and the gross and unrestrained gratifications of an ill-regulated mind to contend with. Thirdly, without wishing to repeat the heartless sneer that the Adam and Eve of the United States were born in Newgate, the fact cannot be overlooked that the sources of the tide of population, which has been flowing for so many years uninterruptedly towards America, have been impure and poisoned. The refuse of other nations has been poured forth. I do not wish to speak disparagingly, nor do I allude merely to the criminal outcasts of the old communities, but to the ruined, the unfortunate, the disappointed, the adventurous, all those, in fact, whose minds are predisposed by previous circumstances to excitement and disease. Fourthly, the intenseness of political feeling, and the agitating nature of the civil contests in which the inhabitants generally are from time to time engaged, must decidedly contribute to the development of the disease."

It is unnecessary for us to make remarks, farther than we have already done, on the chapter on the former state of asylums. The next lecture, on their present state, shews how much has been done, and how much still remains to be accomplished, before the treatment of lunatics can be said to be scientific, or perhaps even thoroughly humane. Positive cruelty is certainly now altogether discountenanced; but there is still a remnant of the old doctrine of the insensibility of the insane in the negative error of insufficient attention, not only to the moral but to many even of the physical wants of the patients. Among the latter, the author alludes to the imperfection of the means of heating asylums, the improper regulation of diet, and the many evils arising from the inadequate supply of servants. Among the moral evils may be mentioned, the want of resources for the occupation of those mental faculties which remain comparatively healthy, and whose action forms a means of withdrawing the patient's attention from, and preventing the recurrence of, the morbid train of feeling which would otherwise occupy his mind. This is but a small evil, however, compared with that arising from the coarseness and brutality of the keepers, an evil entailed on asylums by

the lowness of the remuneration allowed to those individuals, as well as by the repute in which the situation of keeper is held by those of the rank of life from whom they are selected. The constant association of keepers with the insane, seems ultimately to have a considerable effect in depreciating the moral character of the former. "Your first attempt," it was once remarked to Mr Browne, "ought to be to cure your keepers; you need not proceed to your patients till you have done so."

Another evil in public asylums, is the frequently deficient means of classifying the patients. It often happens that the diseased manifestations of one lunatic, prove the direct stimuli of the diseased propensities of another. The allowing such individuals to associate, must evidently prove prejudicial to, at least, one of them, by maintaining his excitable brain in a state of constant irritation. Not only is the separation of many cases of differently or similarly affected minds absolutely necessary, but it is of the utmost consequence that they should be acted on by healthy minds.

"The magnitude of the error committed, in banding together a crowd of lunatics in the same hall, without any reference to the extent or form of their malady, may be gathered from the feelings of horror and distraction excited in a perfectly unimpaired mind, on coming into abrupt contact with the heterogeneous inmates of an asylum; or it may be more strikingly illustrated by the pernicious consequences arising from the indiscriminate intercourse permitted in prisons. How can the already insecure and tottering intellect fail to be shaken by the ribaldries, the ravings, the delusions which assail it from all sides? Or how can healthy impressions be received in such an infected region? Besides the constant excitement, the trepidation, the sentiment of disgrace or disgust which must be produced, positively new delusions may be suggested by this intercommunion, and so successfully engrafted, as to supplant those originally characteristic of the disease. An example of this was recently under my care. A woman believed herself to be our Saviour; and so excellent a proselytizer was she, that she completely convinced one of her fellow-patients of the truth of her pretensions, and so far staggered another by relations of miracles, visions, and so forth, as to induce her, occasionally, to acknowledge the divinity claimed. Intercourse with healthy minds is, in fact, indispensable; and at such stages of the disease as permit of the experiment, the greater the extent to which it is tried the better. The visits even of strangers are often beneficial, by interrupting the chain of morbid fancies, by rousing feelings long dead or dormant, and by re-establishing that bond of connection with the external world and its affairs, which lunatics often conceive; and often conceive with reason, is dissevered. Were a regular sys-

tem, founded on such views, instituted and carried into operation by persons properly qualified, the benefit might be expected to be great and permanent. A practice somewhat similar to that here recommended, at one time received the sanction of the directors of the Retreat at York, but it does not appear to have been pursued to its legitimate extent.* Indeed, with its full application the timidity and prejudices of the public, from whom, under such circumstances, must arise the voluntary moral physicians, will, for a long period, it is to be feared, interfere with such outpourings of humanity, or direct them into channels widely different."

Little, indeed, we fear is to be expected from any part of the public, or from the relations of the insane. Their incapacity, as well as unwillingness, is an obstacle which it will be difficult to surmount; so that the physician must remain in a great degree dependent on his own exertions, and on those of the few individuals under his control, whom he has had opportunities of educating for the purpose of associating with the insane. But ere long, we hope, the example set by Esquirol, Falret, and Voisin in France, of treating the convalescents as members of their own families, will be followed by the physicians of this country. At present, indeed, in many of the public asylums, the convalescents may associate with the resident functionaries; but there are few in which they are treated as members of their families. It is seldom, too, that the minds, or education of those with whom they have intercourse, are of the highest description; and no mind can be too good to be occupied in the endeavour to restore to vigour and health the troubled spirit of a fellow-creature. In consequence of the degree of disrepute in which being occupied in an asylum is still so absurdly held by many who ought to be more enlightened, many are deterred from openly employing their time in the cure of the insane in asylums. This, as well as other still less pardonable motives, cause the best *minds*, attached to these institutions, too often to make each week but a few short and hurried visits to their patients. Instead of this, they ought to spend their days and nights among them, seeking to dive into their most secret thoughts—to comfort their deepest afflictions—to analyze their character thoroughly—to acquire their confidence and their affection. Until this is done, it is almost hopeless to expect a farther advance of the proportion of cures beyond what it is at present. It cannot be said that our means of cure are exhausted till every method of acting on the mental organ—till every stimulant or sedative of its numerous faculties has been put in requisition. Many are the kinds of food which have been supplied to the stomach for the purpose of relieving its diseases; but there is still but little em-

* Tuke. Description of the Retreat, &c.

ployed a large catalogue of mental food, suited to the different states of the mental organ.

We shall close our already copious extracts with the remarks on one of the moral means of treatment, which has been the subject of considerable controversy, namely, religious worship and instruction. Much has been said indiscriminately both in favour and condemnatory of the employment of this means; the following observations, however, place the matter in its true light:—"Upon certain forms of mental disease, religious teaching or ceremonies would act as a direct irritant; upon others they would fall powerless; upon a third class, such ministrations would operate as any other novel scene or occupation which assisted in relieving the monotony of their mode of life; while upon a fourth, their influence would be altogether benign, affording a legitimate gratification to healthy feelings, directing the mind from depressing, or agitating, to soothing associations, and tending to inspire with brighter and nobler hopes, which disease can neither darken nor quench, which will beam in on the troubled spirit amidst its gloomiest delusions, as clear and certain points of guidance, like shore-lights to the storm-bound sailor. Upon the discrimination of the patients to whom religious instruction is adapted, the whole question of its utility rests. To prescribe it as applicable to all cases, would be as wise as to seek for the *elixir vitæ*; and to exclude it because sometimes injurious, betrays a deplorable ignorance of the constitution and the wants of the human mind. I may, with all reverence, compare the employment to that of any other medicine. It must be regulated by the idiosyncrasies of the patients, by the symptoms, the duration and the complications of the disease. No man, entertaining this view, will establish public worship as an hospital routine duty, in which all must or may participate. It should be reserved for the few who can understand its meaning, who may be quieted by its solemnity, cheered by the prospects which it affords, attracted by the beauty of the service, or roused by the recollections which it calls up—the condition of each of these classes having been previously examined and tested as to the extent to which such impressions may be borne, and may prove beneficial. It will be observed, that many are here proposed to be admitted to these rites, who cannot be expected to regard them, or be influenced by them as religious duty. The imaginative, the musical, the lethargic lunatic, are thus all included, because pleasure would be communicated, and a new and healthy direction may be given to their thoughts by the aspect and accessory circumstances of the assembly, independently altogether of its sacred character. Many exceptions, however, must be made, and the pleasure derivable must not be chosen as the ground of admission. Those, in fact, who most ardently desire to join

such meetings, and who pant for spiritual communion, are often those who are least fitted for it. They doubt or despair of their salvation, or their whole soul is in wild exultation at the prospect of the bliss which awaits them : or they have seen visions, or they prostrate every power before the conviction that they are incarnations of Deity, or of the angelic host. In such states as these, any act connected with religion must generally contribute to promote and perpetuate the activity of the diseased feeling. I say, generally, for where the reason remains intact, and the dominant emotions are terror, despondency, penitence for imaginary crimes, and so forth, a clear exposition of the promises of Christianity made to the understanding, in a clear and conciliating manner, sometimes acts as if miraculously. Such cases must be selected, and not experimented on. Under such circumstances, private religious instruction would be infinitely preferable to any public devotional service. It is somewhat singular, that this mode of conveying powerful impressions is scarcely at all resorted to in our establishments. Apart from all other considerations, it enables the clergyman to study and probe the wound he desires to heal, to know the dispositions he has to contend with, and to frame his exhortations, and to regulate his intercourse accordingly. In a promiscuous congregation this cannot be attempted."

In his chapter on "What asylums ought to be," Mr Browne gives a pleasing picture of several of the institutions already existing, which approach nearest to the healthy standard, such as Pirna in Saxony,* Dr Fox's at Brislington in England, Hartford in the United States, and Esquirol's in France. These appear from the description to correspond to miniature worlds, whence all the disagreeable alloys of common life are as much as possible excluded, and the more pleasing portions carefully cultivated. The success which has already attended these philanthropic institutions, especially that of Hartford, is a sufficient guarantee of what may be expected from the more general adoption and following out of the principles on which they are regulated. Towards the removal of the chief obstacles to the application of these principles, we can say with confidence, that Mr Browne's lectures will contribute much ; and we cannot refrain from expressing a hope, that he will continue in the benevolent course which he has commenced with so much ardour, and whose beneficial effects, we are informed, are already visible in the institution under his charge ; since, as a practical man, his example and opinions cannot fail to have much weight with those under whose control asylums are placed, with the relations of the insane, and with those engaged in their treatment.

* A short account of this hospital will be found in the next article.

ARTICLE VIII.

MR COMBE ON THE INSTITUTIONS OF GERMANY.

TO THE EDITOR OF THE PHRENOLOGICAL JOURNAL.

SIR,

DRESDEN, 24th July 1837.

As all statistical information regarding the present state of Phrenology is interesting, I send you a few facts regarding its progress in some of the cities of Germany.

I arrived in Hamburg on 27th May. It is a free town, and is distinguished by intellectual activity as much as by commercial enterprise. It has a Gymnasium or College, in which lectures on science, history, and languages, are delivered. I saw a House of Refuge at Horn, near Hamburg, for the reformation of juvenile offenders, which is conducted on very enlightened and humane principles. There were then fifty-four children in it, of whom thirteen were girls. It is supported by subscription, and the annual cost is L.10, 4s. Sterling for each child, beyond the produce of their labour. It is conducted by Candidat Wicher, an unplaced clergyman, and his wife. He has unlimited authority, and is obviously the soul of the institution. He was born in the lower ranks of society, and knows the manners and feelings of the people; yet he is intellectual, refined, and gentlemanly in his manners and appearance. The children are taught reading, writing, religion, and a trade, and there is a master for every twelve of them, who never leaves them night or day. The institution consists of several distinct buildings, none of them ornamental or expensive, placed in a field of a few acres. The children are punished by deprivation of food, confinement, or flogging, when they behave ill; but always moderately, as a parent would chastise his children: and although there are no walls nor other fences, they do not run away. A few of them, however, laid a plan to burn the whole establishment, when Mr Wicher's wife should be confined, and when they expected that his attention should be engaged by her. Their scheme was revealed by one of themselves, and defeated. It is a House of Refuge for young persons who have either been condemned by the courts of law for crimes, and suffered the punishment allotted by the law in the House of Correction, and who afterwards, by the consent of their parents, have come here for reformation,—for delinquents apprehended for first offences, and whose parents, rather than have them tried and dealt with according to law, subscribe a contract by which they are delivered over to this establishment for improvement;—and for children of evil dispositions, whose parents voluntarily apply to

have them admitted into it for their amendment. Mr Wicher, although entirely unacquainted with Phrenology, told me that he had been struck by the flatness in the coronal region, and the roundness of the lower region of the head, in the children who were most remarkable for depravity.

In Hamburg I did not see or hear of more than two phrenologists,—one Mr Bower Kleeft, a Dutchman by birth, but long resident in London. He is a very devoted phrenologist, and keeps a statuary shop here, in which he sells copies of Mr Deville's busts, having the organs marked. He has got Deville's work on Phrenology translated into German. He works as an artist, and sells stucco figures, but his great object is to propagate Phrenology. He says that the Medical Doctors of Hamburg leave their carriages at a little distance from his shop, and buy a bust and carry it away under their cloaks, as if they were ashamed of what they were doing. Some of them return for a second bust, and he says that he sees evident proofs that Phrenology is exciting interest among a few, but they are afraid to avow their impressions. The other gentleman who knows something of Phrenology is Dr Kröger, Teilsfeld, No. 8, a teacher of the deaf and dumb at the Weisen-haus. He takes a great interest in education, and corresponds with the most eminent educationists of Europe. He has a valuable collection of twenty-three works or pamphlets on Phrenology, commencing with a work of Dr Gall's, published in Vienna in 1792, and extending over the years from 1803 to 1833. He had read the translation of my *System* by Dr Hirschfeld.

Dr Hirschfeld came from Bremen to meet me, and informed me that the publication of his translation of the *Constitution of Man* into German had been suspended, by the failure of his own health and other causes, but that he would have it published in a few months, the MS. having been long ago completed, except the Appendix. I visited Dr Wurm, His Excellency Syndicus Sieveking, and other gentlemen of high consideration in Hamburg, received the greatest attention from them all, and if there had been more known phrenologists I should have heard of them.

On Friday, 2d June, I arrived at Berlin, and presented introductions to the most eminent Professors, the English Ambassador, Lord William Russell, and other gentlemen, and again met with every possible kindness and attention. The magnificence of the public buildings in Berlin is well known; the streets are wide and the houses handsome, and altogether we found it a pleasant residence, although so cold that we repeatedly had fires. Among all the Professors whom I saw (and I was told that I had seen nearly all the distinguished men), not one professed himself to be a phrenologist; and I could not discover that

any collection of phrenological busts or skulls exist in the town. Professor Ideler, who is Director of the Lunatic Asylum, had read Dr Spurzheim's works and mine, and told me that he saw the importance of Phrenology, and was impressed with its truth, but that he had no means of studying it, it being difficult to do so from books alone. Professor Froiep, whose father had written a pamphlet on the science thirty years ago, had read something on it, but he is not a phrenologist. He, however, requested me to order a series of casts of national skulls to be sent to him from Edinburgh, for the Academy of Arts, of which he is a Director.

I met Baron Humboldt, the celebrated traveller, at Lord William Russell's at dinner, and found him to possess a magnificent anterior lobe, with excellent sentiments. He had known Dr Gall for twenty years in Paris, and regarded him as a man of genius. He said that Gall had always spoken much of his brother's head (whose mask is in the phrenological collection), but never saw any thing in his own till he had distinguished himself. I told him that, in his brother's mask, the organs of Language and Number are very large, and he said that the talents corresponded. I added that, in his own head, there is a very large anterior lobe, almost all the organs of which are nearly equally developed, so that a phrenologist could not specify any one talent in which he would be pre-eminent, but that no one could hesitate in saying that he had the brain of a man of very high intellectual power. He is said to be sixty-four years of age. He is not at all favourable to Phrenology, yet his head is one of the strongest proofs of its truth. I called for Dr J. Müller, Professor of Physiology, who is known over all Europe, and is now publishing on Physiology. I was told that he is a decided opponent of Phrenology; but I had no conversation with him, and never met him again. Dr Dietirici, who is one of the Council of the Minister of Public Instruction, told me, that the question of improving the schools for females is under consideration, and that he had advocated views on this subject essentially the same as those contained in my Lectures on Popular Education, of which I gave him a copy. He told me also, that the minister would acknowledge receipt, in due form, to Messrs Chambers, of the volume of their Journal, which I presented in their names.

On 13th June we arrived at Leipzig, and again saw several of the most distinguished literary men. There is not one phrenologist among them, so far as I could learn, but Dr Radius expressed much interest in the subject, and regretted that he had no means of studying it.

On Saturday, 17th June, we reached Dresden, and presented our letters. Dr Seiler, Director of the Chirurgical and Medical

Academy, was the first who called, and afterwards several other Professors and Doctors, who were all kind and attentive. In this city Phrenology is much better known. Dr Seiler, a good many years ago made a large collection of casts and other illustrations, and most of the works on Phrenology; and a number of other eminent medical men have studied it more or less. Mr Robert Noel, a relation of Lady Byron, afterwards resided here for two years, and taught it privately. He has interested Prince John in it. There is no University here, but the Academy, of which Dr Seiler is the Director, educates medically from 80 to 100 young men every year, and has a full complement of Professors. There is an extensive and valuable anatomical museum, in which I found admirable preparations of the brain, dissected according to Doctors Gall and Spurzheim's anatomy, and shewing the converging fibres, as well as all the other parts, in the clearest manner. There is in the museum a large collection of phrenological casts and skulls from Edinburgh, London, and Paris, many national skulls, and many skulls of criminals. Part of this collection belongs to Dr Seiler himself, and the remainder to the Academy. There is a Veterinary School attached to the Academy, also under Dr Seiler's superintendence, and here a valuable collection of the skulls of the lower animals has been made. Add to this, that Dr Seiler has all Dr Gall's works, all Spurzheim's, Dr Vimont's, all those published in Edinburgh, with the Phrenological Journal from the commencement, and you will perceive that his means for teaching the science are ample. He has taught Phrenology as the physiology of the brain, in his lectures on Physiology, and he proposes next winter to give a course on Phrenology itself. A number of other medical men and private individuals are also interested in the science. I met Dr Seiler and other eight or ten of these gentlemen in the museum, and explained our method of observing development; and they wrote out the organs in three busts, and one living head besides was examined. They were much interested, and the characters of the individuals, they said, corresponded with that which was indicated by the development. Dr Minding from Berlin was present, and said that he would report there what he had seen here, and hoped that some means might be used to excite the Professors there to the study. I was struck with the large anterior lobes and large moral organs of the Berlin Professors whom I saw, and am satisfied that only instruction is necessary to set Phrenology agoing in that city. I saw at Berlin Professor Ehrenberg, who very obligingly repeated his demonstrations of the fossil infusoria for our gratifications. They are so distinctly visible by his microscope, that the reality of his discoveries cannot be doubted. He has also published a work on the minute structure of the nerves

and brain in man and animals, as seen by the microscope, which, I was told by a friend, had upset the phrenological anatomy. I have since seen the work, but from the hasty examination which I could give to it, I am disposed to believe that there is no truth in this assertion. Dr Joseph Berres of Vienna, in 1836, published a work also on the structure of the human body, as revealed by the microscope. Both Ehrenberg and he give drawings shewing one structure in a nerve of motion, another in a nerve of feeling, and another in a nerve of taste, and so on. These three are given in Berres's work, but others appear in Professor Ehrenberg's. Mr Otto of the Botanical Garden at Berlin sends his compliments to Dr Neill and Mr Macnab. I shall proceed in a few days to Vienna.

In all the inquiries which I have made, I have never met with an instance of an individual who knew Phrenology and had subsequently given it up. Those whom I have seen know nothing of it, or are phrenologists. The great names, who in Germany as in England opposed it at first, have been successful in preventing inquiry into it; but as its progress in France and Britain is known in this country, this neglect cannot long continue. If Dr Seiler lecture on Phrenology here, the Professors of Berlin must follow. Dresden is only sixty English miles from Berlin.

PRAGUE, July 4. 1837.

In Dresden there are so many English, that every object of interest in that capital has already been made exceedingly familiar to the British public; but I have visited two institutions of the Saxon government that are not so well known, and yet well merit attention.

By the kind request of Mr Bastard, Baron Zezschwitz, the Minister of War, wrote to Mr Braun, the Director of the Institution which I am about to describe, requesting him to shew us every thing, and we experienced a most friendly and hospitable reception. At the distance of sixteen English miles from Dresden, up the Elbe, and on the confines of the Saxon Switzerland, lies the estate of Ritter-gut, of Klein Struppen, containing between four and five hundred acres. It was purchased, not many years ago, by the Saxon Government, and now contains a school for one hundred and thirty boys, the children of soldiers. It is under the control of the Minister of War, and it could not enjoy a more enlightened and generous patron than Baron Zezschwitz. It is managed by Director Braun, his wife, and two assistant teachers. The boys enter at six, and remain till they are fifteen. The only qualifications for admission are, being the son of a soldier (dead or alive), and poverty. There are always numerous candidates, and the selection is made by the

Minister of War. The boys are taught religion, reading, writing, arithmetic, drawing, surveying, German composition, music, geography, and mathematics, and also instructed in a trade. The farm is managed by a very intelligent superintendent, and its produce applied in maintaining the boys, teachers, pastor, and servants. The boys work on the farm, and are instructed also in rural affairs. They are left at liberty, when they are discharged, to follow any occupation they please, but many of them become soldiers.

We heard the boys examined in their various branches, and were greatly pleased. Director Braun and his assistants appear to be acquainted with, and to carry into practice, all the newest improvements in education. Their whole souls are in their duty, and instruction is with them obviously a labour of love. In drawing, the children are taught to work directly from nature. A square, a pentagon, or other regular sided figure is presented to them, and they draw it; afterwards they try more complicated objects, and some of them succeed in representing very difficult and complicated subjects with great fidelity and taste. They are also taught surveying and map-drawing. We were struck by the air of intelligence displayed in all their exercises. There was none of that extreme readiness which bespeaks a well-drilled memory, exercised for show, but often acting in the absence of judgment. There was, however, a clear, considerate, and unhesitating answer to every question, indicating a full comprehension of the subject. There was no tone of authoritative command in the manner of Director Braun and his assistants, in speaking to the children; neither was there any appearance of an assumed suavity of manner, put on for strangers. The whole conduct of both teachers and pupils shewed that they were occupied chiefly with this subject, and lived on terms of reciprocal attachment. The boys sang extremely well, and the style of music was unspeakably above that which we should find taught in an infant or hospital school in England. The boys write descriptions of objects or places which they have been taken to see, to exercise them in German composition.

We visited their little private gardens, which bore evident marks of care, and of the strictest respect to each other's property. They had the usual apparatus for gymnastic exercises, which they performed with great strength and dexterity. We saw a large detachment of them also busily engaged in hay-making.

The Economie, or farm, also is a model of agricultural improvement. There are sixty milk-cows, kept in the best manner, besides oxen (which in almost all Germany are used for draught, ploughing, and drawing waggons), sheep, poultry, horses, and swine. There are one hundred and sixty persons in

all on the books of the establishment. The boys are fed chiefly on milk, bread, soup, millet, rice, and the vegetables of the season. They have butcher's meat only once a-week. Their appearance indicated good health, and their minds were obviously active and happy. The farm yields a small revenue in money, after supplying the wants of the establishment. This sum, and about 5,000 dollars (of 8s. each), additional, contributed by the Treasury, cover the whole expense of clothes, salaries, and necessary outlays.

The situation is remarkably well-chosen, and as physical impressions exercise a powerful influence on the mind, much judgment has been displayed in the selection. It stands on the verge of the Saxon Switzerland, one of the most singular and beautiful districts in Germany. The fortress of Königstein, Lilienstein, the Baste, and the Great and Little Winterbergs, all hills of 700 or 800 feet in height, of picturesque aspects, are seen from it on the one hand; while Dresden, Pillnitz, and the thriving little town of Pirna appear on the other. The Elbe lies about an English mile from the school-house. The ground swells into gentle eminences and sinks into corresponding valleys, one of which looks as if it had been, at one time, the bed of the Elbe. Along this valley, the houses of the pastor and servants are strewed in a very picturesque manner, and each is adorned by its own garden and trees. The buildings in which the boys live, and also the farm-offices, occupy the ridge of the highest ground. The most perfect cleanliness pervaded every department. The sleeping-rooms are large and well-aired, the bed-frames of iron; and the dress of the boys is a simple blue jacket and trowsers. In summer they wear neither stockings nor shoes, Mr Bastard had sent over some hop-plants from Hampshire, for the farm, which he had the pleasure to see growing well, although, owing to the freezing of the Elbe, they were two months on their passage. The apartments allotted to Director Braun and his wife are large and handsome, and are furnished with great taste in the simple German style. Baron Zezschwitz intended to meet us himself at the school, in which he is greatly interested, but was prevented by a discussion in the Chambers. Nothing could exceed the attentions which we received from Director Braun and his lady, and the superintendent of the farm.

The second institution under the Saxon Government to which I alluded, is the Lunatic Asylum of Sonnenstein. The town of Pirna lies ten English miles from Dresden, farther up the Elbe. It is built on a plain, almost level with the river; but on the north-east side the ground rises suddenly to a height of 150 feet or upwards, and on this spot a fortress had been erected at some distant period, which completely commanded the town and the

Elbe. Many years ago it was converted into an asylum for the insane of Saxony. When the French occupied the country in the year 1818, it was again restored to its first destination. Without one day's notice, Napoleon ordered Dr Pienitz and his patients to leave it, and so sudden was the command that the physician, patients, superintendents, and servants, passed the first night in the church of the town. The French defended the place against the allies, but in 1814 were at last expelled. Six months after the peace, the Sonnenstein was once more delivered up to Dr Pienitz and his patients, who have continued to possess it ever since. The fortress, now the asylum, occupies the flat top of the eminence which I have described; and besides barracks, now converted into excellent apartments for the patients, it comprehends extensive gardens. The rooms look out on the Elbe, and on a beautiful country of many miles in extent towards the north-west and west, and the Saxon Switzerland, with its varied scenery of beauty and grandeur, lies within the scope of the eye to the south and east. Here, then, the two first requisites for an asylum are abundantly supplied—fine air and a sunny cheerful prospect. The houses are built on the margin of the precipice which overhangs the Elbe, and themselves form an enclosure on one side. The gardens extend far in the opposite direction, and their walls appear to be the fences to exclude the public, rather than to seclude their occupants, and no direct arrangements for confinement are suggested to the mind. There are two hundred patients; the greater number paupers; but there are some in better circumstances, who pay from 200 to 300 dollars (from L. 80 to L. 45) per annum. The patients were working busily in the gardens; some were walking, and some playing at games. They have excellent baths, gymnastic apparatus, billiard room, and a chapel, in which divine service is performed to those who are in a condition to profit by it. At the foot of the steep bank, which connects the gardens with the town, stands an excellent house, occupied by Dr Pienitz's assistant and his wife, as an establishment for convalescent patients. They live in the family of the assistant, and have gardens, a music-room, bedroom, and enjoy the benefits of society, music, and dancing. Here there is no constraint. Dr Pienitz is admirably calculated for his duties. He studied under Pinel, in Paris, thirty-three years ago; and to force of character, and a fine intellect, adds the gentlest and most benevolent manners that can be imagined. To every patient he speaks a few words of familiar and respectful kindness or encouragement as he passes; he listens patiently to every word that is addressed to him, and he uniformly gives an honest answer. We saw only one patient under restraint; and were informed that the abundance of labour supersedes the necessity for confinement in almost all. The patients were em-

ployed in sawing wood, in washing, cooking, and performing every variety of duty, superintendents being present wherever several were engaged together; but so completely did these men identify themselves with their patients, that in several instances a sharp scrutiny was necessary to tell which was the patient and which the keeper. At the opposite side of the town, Dr Pienitz has a private asylum for patients of the higher orders. For L. 100 Sterling per annum he provides the very best possible accommodation for them, including the maintenance of a servant and every thing else. He has here individuals from all parts of Germany, and lately had an Englishman, who recovered.

These two institutions speak strongly in favour of the enlightened humanity of the Saxon Government. I wish, however, that they would improve the roads leading to them, and indeed in general throughout Saxony. They have stones in superabundance, yet their roads are greatly inferior to those of Prussia, Austria, and Baden, on all of which I have travelled.

The weather all over Germany was exceedingly cold in spring, but from the 1st to the 30th of June it was warm. The crops are good, although late. It has again set in cool, if not cold. In some places the crops are destroyed by inundations of the Elbe in spring.—I am, &c.

GEO. COMBE.

ARTICLE IX.

THE PRESENT STATE OF PHRENOLOGY IN THE UNIVERSITY OF CAMBRIDGE.

THERE is an article in the Phrenological Journal which briefly mentions Dr Spurzheim's lectures on Phrenology at the University of Cambridge, about the year 1827. It is there stated that they were attended very well by the resident members, and by most of the tutors and lecturers of Colleges.

The seed, however, appears to have been sown in this case on too rich a soil, for in this "seat of learning" (called so, we will hope, not by courtesy), Phrenology certainly did not then succeed in striking deep root, and in a few years Dr Spurzheim's visit became but as a tale that is told, and from 1830 to 1836, no other champion appeared to lift the banner of Phrenology, much less was an army to be found in readiness to come forth and rally round their leader.

Here and there, however, some solitary student amused him-

self in his hours of ease with perusing the pages of Gall or Spurzheim, or their living representative, and perhaps made the "New Theory of the Brain" a subject of discussion with some combative "opponent," in lieu of the more familiar and drier "arguments" on "The Theory of Couples," or "Undulatory Theory of Light." Oh! the light that would then burn forth in our advocate's eye, as he carefully threaded his way through the intricate combinations of the organs, and, borne forward triumphantly by Hope and Firmness, overthrew successively his opponent's outworks, and even dared, with impious hand, to attack the strongholds of metaphysical dogmas, even in the bosom of an University!

But such a bold adventurer as he whom we have imagined, is not of those favoured sons whom Alma Mater most "delighteth to honour." The fellowship, bestowed with liberal hand on the plodding mathematician, who, without in *any way distinguishing himself*, either in the College or University examinations, has, by dint of ink by day and oil by night, "crammed" himself within the list of wranglers, is not for such as these. No, "they are conceited fellows," "would not take advice," "thought they could do without reading," and "we are well rid of them;" and thus, indeed, the University is doubtless "rid" year by year of some of her most enlightened sons; and thus, perhaps, may the problem best be solved *why* Phrenology has not struck root in Cambridge; for, that it is *known* there, as at least a "dreamer's dream," if you please, and that the varying tenants of the University are not incapable of judging for themselves of its merits, we presume are "postulates" which no one will refuse us. And yet the truth cannot be withheld, that, until within the last ten months, the subject was as dormant as the folios in the College* libraries, or the Senior Fellows at any other hour but that of meals.

About the time, however, which we refer to, a new impulse appears to have been given to the science, and even, oh horrible! *our* pages have found their way (certainly unsolicited, unbribed, without intrigue or corruption), into this abode of the Muses. But hold, we must not boast too much; it is true "All's well that ends well," and when we can say with truth that the agitation of our merits or demerits as a periodical has *ended* in the sale of some half dozen copies quarterly in Cambridge, we have not much to complain of. Nevertheless, we must be honest, and tell of our defeats as well as of our victo-

* Besides the *University Library*, which is open (though not so freely to the Students as it ought to be), each *College* possesses its own private collection of books, which it preserves with great veneration and care, neither using them itself, nor allowing the Under-graduates (who would use them) admission to this "sacred heap."

ries, a candour, by the bye, which our antagonists, we are sorry to find, are invariably wanting in. It was proposed that the Phrenological Journal should be taken into the reading-room of the Philosophical Society, it being already thought not unworthy of a place on the shelves of the Public Library, and so, according to form, we were duly *suspended* for fourteen days, to await the sentence of that justly celebrated and learned body—and we were by that body rejected. Our proposer was one of the leading characters in the University, and whose deserts we are happy to learn have since pointed him out as the object of Ministerial patronage. We will take the opportunity here to observe, that if Phrenology were universally, or even generally cultivated, *desert* would, nay *must*, always be the first ground not only of Ministerial patronage, but of patronage of all kinds, and hence of *University* patronage; and hence the bitterness against us among certain persons: *Hinc illæ lacrymæ!* Oh, let Phrenology become the rule upon which Fellows are to be elected, how would — and — and —, “*Quos ego! sed motos præstat componere fluctus;*” let us calm our waves; it is neither our wish, nor consistent with our principles of universal philanthropy, to lose our temper, or to be angry with any one, because they *won't* read our articles. Still we wish they would, for their own sakes; it would do their Self-esteem good to see “*Se quoque principibus permixtos*”; to see themselves thus represented to the life, *veluti in speculo*; to hear that whispered to them by a friendly ear in their closet, which they will never hear from their abject menials, their bowing “gyps,” and hat-touching “bed-makers”, or the independent but tongue-tied under-graduates.

But to return; we had to deplore our Addresses Rejected. Some six-and-thirty names, we were informed, kindly put the white calculus into the urn, and to them, singly and collectively, as wholly unknown to us, we take this opportunity of returning our hearty thanks; but some six-and-twenty honourable members—so, indeed, are they all, all honourable members—condemned us by dropping the *black bean* (Oh, Pythagoras, thy sage counsel!) into the *immitem urnam*, and thus we lost*, the day, but have gained many a friend. Opposition and persecution certainly, where founded in error and injustice, will always fail in attaining their object; nay, more, will invariably conduce to the forwarding the very end they aim at preventing. So has it ever been in nature, and Phrenology being nature, is, as all things else, amenable to nature's laws. “*Victa tamen vinces,*” conquered we have been, but to bring our conquerors

* The rule of the Society being, we believe, that *two-thirds* of the names must *approve* of the proposed publication before it can be placed on the table of the Society.

under our yoke ; nor did the overthrow of Troy more directly lead to the establishment of the Roman supremacy, than shall this (*si quid habent veri natum præsagia*) to the weaving of the brightest crown of Phrenology from the laurels of the Academic Grove.

We are already informed, from authority on which we can rely, that our science is at this present moment a favourite theme of discussion with the rising generation of the University ; that the younger part of the *Medical* profession are satisfied of its truth, and observers of its conclusions ; that collections of some extent are made by individuals* both of casts and skulls, with heads of animals ; and that though all will not confess themselves "believers in Phrenology," it is a rare thing to meet with an open and confessed "unbeliever."

It is naturally a great satisfaction to us to receive such intelligence, especially that we are courted by the younger part of the students. Doubtless, this age is one of wonderful advance in the practice as well as theory of education, and we have good hope that we, too, may bear our share in *directing* (even if we be denied the honour of originating,) the rapid march of mind. To the universities we look, with the affection of a Briton to his second parent, as to those bodies which must give stability to each improvement as it rises on the horizon of the moral as well as political hemisphere ; and while we regret their slow adoption of anything *new*, (and we are new ourselves, being but children of a quarter of a century,) we cannot but consider this property of inertness a most valuable corrective to the mercurial tendency to *innovation* often miscalled by the name of improvement. But let once any change, moral, physical, or political, receive the stamp of authority which these bodies must confer where they approve, and we are sure that this sanction, arising from judgment and conviction, and not from haste or folly, will be durable ; and we hail the tardy accession of our last ally with greater joy than that of the ninety and nine, who earlier, but not more sincerely, tendered us their allegiance. Hence our dreams of conquest,—and yet not of conquest but of peace ; we extend the branch of olive, and, with Harmodeus, sheath our sword in a myrtle bough ; may it never again be drawn but in concert with the sons of learning.

* We have heard of one member of a College possessing in his private museum from seventy to eighty casts, principally of living members of the University.

ARTICLE X.

DR LEWINS AND MR CRAIG *versus* PHRENOLOGY.

SCARCELY had we told our readers in the notices appended to our last number, that neither Dr Craigie nor Mr Craig had ventured to publish any answer to Mr Combe's evidence on the change of temper consequent on disease in the organ of Combateness, in the case of Mr N., narrated at page 352 of No. L., when, on looking into the appendix attached to the third and last part of the late Dr Fletcher's "Rudiments of Physiology" just then brought out, we were surprised to meet with a letter from Mr Craig, apparently intended as an answer, and embodied in a very gratuitous attack on Phrenology and phrenologists, by Dr Lewins of Leith, and the latter written in a spirit of acrimony and ignorance of the subject in dispute, which was common twenty years ago, but which we hoped had long disappeared never again to revive. Dr Lewins is the editor of the part of Dr Fletcher's Rudiments referred to, and it is rather curious that his zeal should so far have outrun his better judgment as to have led him to solicit a reply from Mr Craig, when the latter was so little inclined to the contest as to preserve silence in the only two journals where the facts of the case were narrated, and where, consequently, the readers could form any opinion of their own. Mr Craig, however, has followed a very judicious course; 1st, because he has published where no reply can be given; and 2^d, because his letter contains merely a reiteration of his former assertions unsupported by a shadow of additional proof, and is therefore wholly undeserving of notice. But as neither the wrath of Dr Lewins nor the simple reiteration of assertions by Mr Craig, constitutes logical evidence in a question of philosophy, we did not intend to bestow upon their joint lucubrations any other remark than an announcement among our "notices" of their existence. A correspondent, however, who was long a diligent pupil and admirer of the late Dr Fletcher, has sent us the following able communication, to which, in justice to the memory of Dr Fletcher, we think a place is due, and we give it accordingly with great pleasure.

It is proper to premise here, that the only ostensible exciting cause of Dr Lewin's wrath, is an alleged statement by the phrenologists, (where, and by what phrenologists, Dr Lewins does not specify,) that Dr Fletcher was favourably disposed towards Phrenology, and considered its principles as philosophical. Dr Lewins denounces this statement as calumnious and unsupported by any thing that Dr Fletcher ever said, did, or wrote; and

he is very indignant, that "Mr George Combe, writer to the signet," should dare to utter sentiments in opposition to "Dr David Craigie, editor of the Medical and Surgical Journal," "Academicus, a distinguished professor of Physiology," and "Mr Craig, a respectable medical practitioner." In regard to Dr Fletcher's real opinions on the subject of phrenology, we refer the reader with confidence to the facts quoted by our correspondent, Mr Tait, and only remark, that if Dr Lewins had been more consistent in his admiration of his late friend, and more imbued with his spirit of rational and laborious inquiry, he would have been more impressed with the necessity of deriving his opinions from an extensive induction of facts in a science, which Dr Fletcher himself expressly declares can be refuted only by continued observation, and not have rashly committed himself by pronouncing a strongly hostile opinion against daily and surely advancing truths, every step in the progress of which will tend to depreciate his own reputation as a philosophical inquirer. We repeat, that we consider Mr Craig's letter as no answer to Mr Combe, and as in itself wholly undeserving of reply, and that it is only in justice to Dr Fletcher and the cause of truth, that we consider Dr Lewins's attack as claiming any attention. If Mr Craig shall ever come forward with *facts* in proof of his opinions, we shall be ready to meet him; but till then it would be a waste of time and space to dedicate a single sentence more to him. We shall not even attempt either to save "Mr George Combe, writer to the signet," from the awful indignation of Dr Lewins, or to explain to the latter how it happens, that a man who has examined a subject carefully, and scrutinized its evidence by years of observation, is *generally* considered to be better qualified to form an opinion; and, therefore, to be less daring and less presumptuous in expressing it, even in the face of the intrepid hostility of those who have never studied it, than the latter are in assuming the right to decide without any regard to the force and bearing of evidence. Our readers can see the reason (whether Dr Lewins can or not,) and to their judgment we leave it.—EDITOR.

TO THE EDITOR OF THE PHRENOLOGICAL JOURNAL.

SIR,—It is much to be regretted, that while the learned editor of the posthumous part of Dr Fletcher's Rudiments of Physiology, should have finished the task consigned to him with much fidelity and ability, he should have thought himself justified in adding an appendix against Phrenology, which diminishes, rather than enhances, the value of the work. How far he was warranted in doing so from the text or private notes

of Dr Fletcher's invaluable manuscript we know not. But from a careful perusal of the printed work itself, from an indelible impression left upon our minds, and from extensive notes in our possession, taken during two winters' attendance on the lectures of Dr Fletcher, we, unhesitatingly, give it as our opinion that he assumed no such high grounds against Phrenology as the appendix would lead us to suppose. On the contrary, we are prepared to shew, on the best authority, his *Rudiments of Physiology*, that he admitted the most important points contended for by phrenologists.

On reading the first sentence of the appendix by Robert Lewins, M.D., we were remarkably struck with the acrimony of the author's remarks, and were at a loss to conceive his true motives for appearing in the ranks of the anti-phrenologists. This we endeavoured to explain by supposing, that he had either espoused a bad cause, or received some personal or professional offence from some of the leaders of Phrenology. But no such thing. His desire to appear in public on such a momentous question, originated in a purer source. His unacquaintance "with metaphysical reading" makes him shy the "subtle phrenologist" on that "debateable ground;" but, being "fully competent" to give an opinion on the "medical claims" of phrenologists, he ventures to discuss their pretensions in this department of their science. And though, according to his own statement, he is thus only half-armed for the contest, he adventures patriotically to attack the "lofty position which the Edinburgh phrenologists, in particular, have lately attempted to assume."

The Doctor is evidently offended at the great progress Phrenology is making throughout this and other countries, and regrets, we doubt not, that he is in no way entitled to share the honours which its progress sheds upon its advocates. He appears to make light of the assertions of phrenologists, that the science is embraced by the most celebrated physiologists in Europe. The names of Broussais, Andral, Cloquet, Vimont, Johnson, Elliotson, Hunter, Macnish, Mackintosh, Evanson, Drummond, Otto, Hoppe, Kieser, Harrison, Jacob, Carmichael, Barlow, Conolly, &c. &c. are nothing in his opinion, provided Magendie, Tiedemann, Sir Charles Bell, and Professor Alison be against Phrenology. These, together with Dr Lewins, are the only persons "fully competent" to give an opinion on the subject. "Dr Fletcher too," says Dr Lewins, "has been represented by the Edinburgh phrenologists as favourable to them;" "but I have evidence in his own handwriting to the contrary." Dr Fletcher is certainly not an antiphrenologist. In the foot-note appended to page 128, he says, he is "desirous that the thing should have fair play," and that he "implicitly

believes some of the leading facts." But how far he and phrenologists agree, may be seen from the following passages from his work. He admits, at page 96, that "the faculty of thinking is seated in the brain;" "that the number and extent of these intellectual operations bear an exact relation in all animals to the degree of organization of the brain." At page 103 he says, that "we seem to have a right to infer, that a certain degree of intensity in any particular mental function is *always*, in general, found connected with a certain degree of development in a particular part of the brain, and that this particular part of the brain is subservient, in some way or other, to the particular mental functions in question;" thus clearly admitting, with phrenologists, that the faculties of the mind are manifested by different parts of the brain, and that each particular faculty depends upon its own particular part of the brain. These are the two grand positions on which phrenologists take their stand, and on these Dr Fletcher and they are at one. The only doubt he seems to entertain is, "Whether such a particular development of the brain produces a corresponding change in the character of the skull, to be ascertained through the integuments?" "This is the question," says he, "which furnishes the chief bone of contention between phrenologists and their opponents." This is an objection that was keenly urged by the late Dr Gordon, and successfully refuted in the *Phrenological Journal* and *Combe's System of Phrenology*. The objection is to Dr Fletcher, however, only a difficulty; for he states distinctly at page 104, that "even though the correspondence between the two plates of the skull were less than it actually is, it would not furnish a fair objection to the conclusions of Phrenology." "The whole question of Phrenology," says he, "is one which cannot be determined by reasoning, but by careful and long continued observation." This is a conclusion in which he and phrenologists cordially agree; and the latter flatter themselves that they have cultivated this field with such success as to warrant them in giving Phrenology the name of a science. It is only justice to the memory of Dr Fletcher to say, that all the objections advanced by Gordon, Milligan, and Stone, authors on whom the Editor of his work looks as indubitable authorities in all matters relating to Phrenology, were carefully and successfully refuted by him. And we well remember putting the question to him one day after lecture, Whether or not *any* of the arguments of antiphrenologists would tend to weaken or overturn the doctrines of phrenologists? To which he replied with emphasis, "None. To be successful, they must take up new grounds—the field of observation alone—or phrenologists are quite secure." Were farther evidence necessary to prove Dr

Fletcher's bearing towards Phrenology, many of his observations in the chapters on the Senses, Sleep, &c. might be quoted to strengthen or confirm that already adduced. It only surprises us, then, that Dr Lewins should have endeavoured to twist or misrepresent Dr Fletcher's real opinion on the subject before us, seeing that it was quite impossible—from the evidence of his work itself—to place him among the opponents of the science.

After telling us, no new story, that Magendie, Gordon, and Milligan, were against Phrenology, and as if he was conscious that this was not of itself a sufficiently powerful argument to overthrow the science, Dr Lewins draws support from another quarter, one, in short, which betrays his total ignorance of the subject which he voluntarily comes forward to attack. "Besides," says he, "many of the striking experiments of phrenologists which have been considered decisive of the truth of their doctrine, were made on classes of individuals whose character and habits, in general, were perfectly known—convicted criminals, for instance, and inmates of penitentiaries or mad-houses," &c. Is Dr Lewins really in earnest when he expresses himself thus, or has he a little of the wag in his composition, and is he coquetting all the time? or does he think the public so easily gulled as to swallow declamation instead of argument? If the latter, we can assure him he has formed too low an estimate of public judgment. And we now put the question to him with all seriousness, Does he not consider this a legitimate field for observation,—one of those, in fact, in which only the science could be successfully established? This is the field which Gall cultivated with such advantage as enabled him to locate the greater part of the organs which the phrenologists of the present day hold as established,—the field in which Dr Fletcher recommended his pupils to make their observations,—the position on which all phrenologists take their stand, and on which they are willing to rest the fate of their science. Whether or not they can divine "real character," is a question that can only be decided by experience; but that it has been done to a nearness is fully testified by Combe's visits to Dublin, Newcastle, and Glasgow.*

The next assertion of Dr Lewins is, that phrenologists affirm that they see with anatomical eyes.† It is unfortunate for this

* See many cases in *Phrenological Journal*.

† This assertion, we doubt not, is a mere echo of that which Dr Milligan made in his note to Magendie's *Physiology*. It is said to be advanced by Spurzheim, but that opinion is not entertained by any enlightened phrenologist of the present day. The peculiar arrangement of the fibres of the medullary matter of the brain,—an arrangement in which Tiedemann in most part agrees,—might have led Spurzheim to believe that he saw farther than other phrenologists.

avermment that it is not true. Phrenologists have all along declared, that the function of no organ can be discovered by dissection. In regard to Monro and Barclay not embracing the science, we have to observe, that it could scarcely be expected from what we know of old age. It has been justly remarked by a modern author, that "as to antiphrenologists really acquainted with the science they oppose, there can scarcely be one. Persons hostile to Phrenology cannot take the pains necessary to the acquisition of a thorough knowledge of it. In doing so they would become phrenologists." So that we may conclude that the time of life to which both these eminent men had arrived before Phrenology became a subject of anatomical controversy, fully accounts for them not embracing the "New Philosophy," since neither of them could put himself to the trouble of acquiring such a knowledge of it as would enable him to defend himself in public controversy. At all events, we can refer Dr Lewins to several professional gentlemen in the catalogue of those already mentioned, as having embraced the science, who are equal, if not superior, anatomists to any of those whom he has chosen to point out.

Dr Lewins prudently passes over the observations and experiments of Sir William Hamilton and Dr Stone, which, in the opinion of some physiologists (very few, we dare say) utterly refute the doctrine as taught by Combe! We express our unfeigned regret that Dr Lewins' prudence did not appear in the first instead of the last paragraph; but hope that, should he superintend a second edition of Dr Fletcher's unparalleled work, which we doubt not will soon be required, he will take the hint to leave out the appendix, as it does not in the least improve it. And were Dr Fletcher ever again to appear on this earth, we are convinced he would do one of two things,—burn the appendix, or for its sake disclaim all connection with the book to which it is appended.

With regard to the case on which Dr Lewins comments, as an important one for his side of the question, we need say nothing, as the details are already before the public, and they can determine its merits for themselves. I am, &c.

W. TAIT.

14 Drummond Street, Edinburgh.

ARTICLE XI.

PHRENOLOGICAL ANALYSIS OF PATRIOTISM. By
Mr W. B. HOBSON.

(Continued from p. 613.)

THE human race, like the individual, advances in wisdom step by step, and gains knowledge by experience; and the uniform failure of all designs to aggrandize one nation by the ruin of another, must sooner or later spread a conviction of their futility, as well as of their injustice. Men will wonder at the folly of believing that the inhabitants of one country can be free, and virtuous, and happy, because, or even so long as, those of another are enslaved, barbarous, and miserable. As they become better acquainted with the end of their being, their common nature and rights, the close connexion and mutual dependence of their interests, they will cease to think a fellow-man an enemy because a mountain rises, or a river or a sea flows between them,* and all national hostilities will be swallowed up by a desire to promote the happiness of mankind at large, whatever their climate, their language, their colour, or their creed.

Nations themselves owe their origin to those very principles, which, in their intercourse with each other, they have so habitually violated. In distant ages we see the world parcelled out into tribes among whom the greatest jealousy existed; however insignificant the boundary between their respective territories, it sufficed to foster an exclusive spirit. When, however, a powerful enemy appeared, these tribes felt that their common safety could be preserved only by united efforts; they combined accordingly, forgetting their distinctions; and though these unions might be frequently dissolved, still they were renewed, and thus were scattered and defenceless tribes consolidated into mighty nations. Union paved the way for civilization, and civilization, in its turn, gave the union strength and perpetuity. Before the Saxon invasion, our own island was inhabited by small tribes, engaged in constant warfare with each other, and each as proud of its own independence as the greatest nation of the present day. Soon after the invasion of the Saxons, we find the Heptarchy established—seven distinct governments, among which the same mutual jealousy still prevailed. At last there arose an able king, who effected the com-

* Lands intersected by a narrow frith
Abhor each other. Mountains interposed
Make enemies of nations, who had else
Like kindred drops been mingled into one.

COWPER, *Task*, B. ii.

bination of them all into a great state. The state thus formed continued gradually to extend its limits, notwithstanding numerous invasions and changes of dynasty, united under one head and with common interests, until it occupied nearly the whole of England. Still we find the same exclusiveness existing between the English and Scotch. Insuperable barriers seemed to oppose their connexion, for they were divided by both a river and a mountain; if these were ever crossed by either party, it was to commit devastation and outrage. This mutual hostility was increased by the unsuccessful attempts of Edwards First and Second to subdue Scotland, and three hundred years were filled with almost continual war. The ascension of James VI. of Scotland to the throne of England in 1603, though much opposed at the time, served to mitigate this reciprocal animosity, and prepared the way for the final union of the two countries a little more than a century afterwards, notwithstanding the awful prognostications of evil uttered at the period. Since that time the interests of both countries have been identified, our jealousies are dying away, and even our love of country is no longer bounded by the ranges of the Cheviot or the water of the Tweed, but embraces all between John-o-Groat's House and Land's End. We talk of ourselves less as Englishmen or Scotchmen than as Britons; it is in the prosperity of Britain that we are now interested. I have dwelt particularly on the history of our own country, because it is most generally known; but the same principle, modified by circumstances, may be witnessed in the rise and progress of every nation.

The same principle of community of interests, which has created nations, must also cement the union between one nation and another. Doubtless, difference in language, and distance of country, put limits to the centralization of government, and render it neither possible nor desirable that states should be literally amalgamated. But, in order that nations be united for the furtherance of their common welfare, it is not necessary that they speak one common language, or be subject to one common government.* Accordingly, we see nations overlooking more and more their points of difference, and banding together for the promotion of the same ends. We see this process going on in our intercourse with France; we hear no more of the blasphemous and inhuman doctrine of natural enmity, foes by situation. The two countries are altogether on more friendly terms; and the recent attempts to negotiate a commercial union furnish us with reasons to anticipate a still closer and more amicable connexion. It may be said that leagues among nations are constantly made, and as constantly dissolved; and

* Schlegel's *Philos. of Hist.* vol. ii. 133.

that therefore permanent union among all nations is a thing impossible. Arguments of this nature are founded on the history of the great ancient empires, whose fate is held by many to prove the instability of all human government. But such analogies are utterly fallacious. I have already shewn that the empires of antiquity were founded on principles the very opposite of those for which I now contend, and which modern governments are proceeding to adopt. Their policy was to raise themselves by the downfall of others; to exalt the few by the subjection of the many; not to identify the interests of other nations with their own, to join them on terms of equality, to admit them to equal rights, and so promote the good of all. Their decline, therefore, merely tends to establish, that the permanent existence of any single state must depend on its recognition of the rights of others.

It now remains to take a rapid survey of some of the various causes which have operated, or which are still operating, to destroy the spirit of national exclusiveness. The first of these was the Reformation. When the torch which was lighted in England by Wickliffe, was carried by Jerome into continental Europe, and passed through the hands of Huss and Luther, thousands, roused by the signal, gathered round the standards of religious liberty. Men then began to feel that love of freedom, and hatred of spiritual tyranny, were stronger bands of union than community of country. In the words of an eloquent and profound writer :—

“ A livelier and more immediate interest than national advantages or patriotism, and entirely independent of civil relations, began to actuate whole states and individual citizens; an interest capable of uniting numerous and distant nations, while it was frequently wanting among the subjects of the same government. With the reformed inhabitant of Geneva, for instance, of England, of Germany, or of Holland, the French Calvinist possessed a point of union which he had not with his own Catholic fellow-citizens. Thus he ceased in one important particular to be the citizen of a single state, and to confine his attention and his sympathies to that alone. His views extended; he learned to connect his own fortunes with the fate of his own religion in other countries, and to identify their cause with his own. Princes now ventured, for the first time, to bring forward the affairs of other countries in their own councils, and to expect attention and assistance. External occurrences are, for the first time, interwoven with domestic policy, and that aid is readily accorded to the religious confederate which would have been refused to the mere neighbour, and still more to the distant foreigner. The inhabitant of the palatinate leaves his native country to fight side by side with his religious associate of

France against the common enemy of their faith. The Hugue- not draws his sword against the country which persecutes him, and sheds his blood in the defence of the liberties of Holland. Swiss is arrayed against Swiss, German against German, to decide the succession of France, on the banks of the Loire and Seine. The Dane crosses the Eider, and the Swede the Baltic, to break the chains which are forged for the freedom of Germany.*

The French revolution also, which shook the foundations of arbitrary power in every country, did much to destroy national antipathy, by leaguering together the lovers of freedom in distant lands, by creating new and powerful bonds of union; and though the outrages in which that event terminated delayed the progress of liberty, in whose name they were committed, still, as it has been well observed, the surface of national antipathy was broken up, a party, which has gradually increased in strength, was formed in favour of France, the events of the late revolution greatly removed the evil impression of the first, and time has weakened, if not destroyed, the jealousy which so long existed between France and other countries, especially our own.†

Again, the progress of science and literature among nations has contributed much, and will yet contribute more, to overthrow the barriers which have too long existed between them; while it will not, as religious creeds have too often done, substitute distinctions of another kind. When men shall be engaged in similar pursuits, all tending to increase the happiness of the individual and the race, national hostilities will be forgotten in the predominant desire for the improvement of the world. When we turn our attention to the occasional instances which have hitherto occurred, when, for example, we remember that, in 1810, when the jealousies between this island and France ran highest, a prize was awarded by the French Institute to

* Schiller's History of the Thirty Years' War, vol. i. p. 47.

As an instance I may quote the reasoning which Davila attributes to the Protestant preachers, when the proposal to demand succours from Queen Elizabeth against the League was objected to, on the ground that advantage would thus be given to the English, the inveterate enemies of France. "I predicatori, che in tutte le deliberationi ottenevano grandissima autorità, é erano a guisa d'oracoli venerati, allegavano non dover si tener conto di queste cose terrene, ove si tratta della dottrina celeste, e della propagatione della parola di Dio, e però convenirsi villpendere ogn' altra consideratione pur che fosse protetta la religione, e confermata la libertà della fede."—Davila, *Guerre Civili di Francia*, lib. iii. The same effect was produced in an opposite way. The balance of power in Europe being deranged by the Reformation, mutual interest produced alliances among nations irrespectively of religious differences. "So strangely did the previous dissensions of the world, beginning in spiritual hate, yet tend to cement the political relations of states which differed in their religious creeds."—Nugent's *Life of Hampden*, vol. i. p. 111.

† Bulwer, *England and the English*, vol. i. p. 103.

Sir Humphrey Davy for his chemical discoveries,* and that, too, against the wish of Napoleon himself, I think we can scarcely overrate the power of common pursuit of science, in uniting mankind with a bond of common fellowship.

The same result will be advanced by the increased rapidity and ease of communication among different countries, and the consequently augmented freedom of intercourse, the mutual exchange of habits, sentiments, and thought. Nations will feel an increased interest in each other's proceedings, and an increased anxiety for each other's welfare. Separated as they now are, and slow as is even the present communication among them, events which happen in one country become old, and lose their interest before they reach the rest; distance of place produces the same result as distance of time; events in the history of our own island a hundred years ago scarcely excite our attention; they pass coldly over our ear; we reason upon them indeed, but it is because they apply to present occurrences; they rouse no vivid emotions, no alternations between hope and fear, certainty and doubt. But the day's news are regarded with very different feelings; they occupy our whole mind; they form the subject of ordinary conversation; they excite us to inquiry and serious reflection. And so it is with events in a foreign country. Facts have lost their freshness, their awakening power, when they reach us long after their occurrence; and we may see an indication of the effect of opposite circumstances in the increased anxiety and attention with which, during late years, intelligence of the proceedings of continental governments has been expected and received.†

Much, indeed every thing, is to be hoped from the diffusion of Christianity, when it shall cease to be regarded as a system of ceremonies or metaphysical subtleties, whose character can change with change of country; when its doctrines shall be

* Nahum Capen's *Life of Spurzheim*, and *Paris' Life of Davy*. Another example may be mentioned. Catharine the First of Russia, with that munificence for which she was so justly distinguished, settled a pension on Euler, as a reward for the services which he had rendered to the Russian academy; and, be it told to her honour, when Euler resigned his situation in the St Petersburg academy, and retired to Berlin, it was still regularly paid, though Russia and Prussia were then in open hostilities.—*Wilson's Biography of the Blind*, p. 70.

† Even with our present knowledge, it is impossible to assign probable limits to the speed which may yet be given to communication of thought. The recent invention of the electric telegraph, which appears to have occurred simultaneously to two, if not three, individuals in different parts of Europe, if carried out, promises to render the words of the Abbé Morellet an actual truth, instead of a bold figure of speech. "*C'est une chose véritablement singulière, comment d'une extrémité de la terre à l'autre, on peut se trouver si bien d'accord; on dirait qu'un fil électrique, traversant le monde, communique nos idées et nos impressions reciproques.*"

comprised in the paternity of God, and the consequent fraternity of man; and its duties summed up in piety to the one, and benevolence to the other.

I cannot now trace further the operation of these and other causes which are, even at this moment, fermenting beneath the surface of society, and altering its whole constitution,—giving the man of science the assurance that every discovery he makes is enlarging the dominion of all mankind over nature,—teaching the lover of freedom that of every blow which is given to tyranny in one country, the shock is felt in every other,—carrying over land and over sea the influence of acts and thoughts of noble minds in the most distant regions,—joining together all lovers of their species, however separated by space,—and gradually identifying every individual with the great cause of humanity.

I have now completed the observations which I proposed to make on patriotism or zeal for country. I have given my reasons for condemning, not the feeling itself, but the indiscriminate applause bestowed upon it, and the high or rather supreme rank which it has attained among the virtues.* I would repeat what I stated at the commencement of this paper, that I do not agree with those who reprobate our domestic and social affections, our love of friends, our love of country, as selfish and opposed to sound benevolence. I contend not for their extinction, which is neither possible nor desirable, but for their due regulation. When guided by reason and enlightened principles, they are most powerful auxiliaries to benevolence itself. To love our neighbours as ourselves is the highest injunction even of Christianity. It is the man who loves his children most devotedly who can enter most deeply into a parent's feelings. The same love of country, which, unguided by benevolence, may prompt us to trample on the rights of other nations, will, when guided by benevolence, enable us better to appreciate, and more to respect, the love which other nations bear to their country. Though we did not love our own home, or our own land, we might perhaps pity the condition of the kidnapped Negro, and condemn the injustice of the trafficker in his flesh, but where would be the intense sympathy with which we make the case our own? Where the depth of indignation with which we resent the injury, as if offered to ourselves? He who loves not what is near will be indifferent to what is remote; and he who loves not the individual can have no true fellow-feeling for the

* Sir James Mackintosh remarks: "The philosophy of this age has weakened the *prejudices* of nationality; but it has reached the further stage of estimating the great value of the *principle*." Of Sir James Mackintosh it was justly said by A. W. Schlegel, "Il était éminemment Anglais par son patriotisme, et cosmopolite par l'absence des préjugés nationaux."

race. As love of country is purest and strongest when it springs from the charities of home; so philanthropy can have no sounder or deeper foundation than in the love of our countrymen, whom, by the very fact of their being our countrymen, by the close communion of interests and of feelings which that word involves, nature has recommended in a peculiar manner to our hearts. What the root is to the trunk, the trunk is to the branches. And as the tree which is bound to its native soil, and nourished by a thousand roots, rises with a strong and upright stem, and flings wide its shady boughs,—so the love of country rooted in the numerous domestic relations is at once the most powerful and the most likely to expand into universal benevolence.*

In conclusion, I would observe that it is important to examine this subject as much as possible apart from the influence of early habit and education, and the delusive charms with which literature generally, and more especially poetry, have invested it. Too much of poetry, from the time of Homer to that of Burns, has been devoted to the exaltation of ill-regulated feelings. It is the prerogative of genius to adorn whatever it touches, and, considering the general predominance of evil passions, it is not surprising that the poetry which borrows from them its inspiration should be so generally acceptable. It is to be regretted that genius has been too often employed in softening down the odiousness of vice, and rendering it attractive. The propensity, which of all others is the lowest when uncontrolled,—its triumph over all moral obligation, have called forth more eloquent poetry than any other feeling. Such writings melt the heart and excite the sympathies of every reader, even though he may condemn their spirit; and it is this influence which is to be most earnestly deprecated. It has been said that the chief evil of vice is its grossness. But certainly in no other form is it to others less dangerous or seducing. The drunkenness of the sot can call forth no feeling but disgust and com-

* Life of Sir J. Mackintosh, by his Son, vol. i. p. 77. Coleridge, *Zapolya*, P. I. Act. IV. Works, vol. ii. p. 370. Ode to Georgiana, Duchess of Devonshire. Table-Talk, ii, 228. Letters, &c. vol. i. p. 65-1836. Letter from Pope to Swift, quoted in Coleridge's Letters, &c. ii. p. 55. "The extensive circle of general philanthropy, which, in the present stage of human nature, comprehends in its circumference the destinies of the whole species, originated and still proceeds from that narrower circle of domestic affections, which first set limits to the empire of selfishness, and, by purifying the passions and enlarging the affections of mankind, has given to the views of benevolence an increasing and illimitable expansion, which will finally diffuse happiness and peace over the whole surface of the world."—Headlong Hall, c. XV. This principle, besides its many other applications, furnishes the true reason against the celibacy of the clergy, which even Lord Bacon in his *Essays* approves, when he says that childless men are the greatest lovers of their race, and which Cobbett, in his *History of the Reformation*, so perversely defends.

passion ; from this no evil moral influence is to be feared, it may even produce a good effect ; the Spartans intoxicated their slaves to teach their children abhorrence of the vice. It is the tipsy mirth and jollity of such sentimental revellers, such inspired bacchanals as Anacreon, against which we must guard. We have nothing to dread from the gross debauchery of the sensualist ; it is the description

“ Of cheerful creatures, whose most sinful deeds
Were but the overbeating of the heart,
And flow of too much happiness, which needs
The aid of age to turn its course apart
From the luxuriant and voluptuous flood
Of sweet sensations, battling with the blood.”

It is such poetry—such descriptions as these which enervate all moral strength, and sap the energy of virtuous determination.

The more ferocious passions also have been ennobled by the same means. As an elegant writer justly observes, “ We do not behold the destroyers of mankind with the detestation due to their crimes ; because we have been inured almost from our infancy to listen to the praises that have been wantonly lavished on them by the most exquisite poetry. The Muses, to apply the words of an ancient lyric, ‘ have concealed and decorated the bloody sword with wreaths of myrtle.’ ”* Thus the poetry of Homer has done more than we can well conceive to invest cruelty and bloodthirstiness with a character of moral grandeur and sublimity. Alexander proposed Achilles as a model to himself, and well did he imitate his example. The poetry of every age is, in some measure, the reflection of its spirit and its manners, and as the human race progresses, and the higher powers attain predominance, so will poetry assume a more elevated character. And we need hardly institute a comparison between the selfish and the benevolent,—the nobler and the baser principles of our nature, as to their intrinsic fitness for poetry.† Surely the infinite wonders of our moral constitution, the glories of our immortal destiny, the mysteries and unfathomable extent of creation, are not less calculated to excite poetical enthusiasm,—to call forth the energies of mind,—less capable of extensive combinations of thought—of heart-stirring associations,—less fitted to receive the rich and warm colouring of fancy, than the clash of armies or the din of battle. Surely there is something more sublime, more ennobling, more inspiring,—in short, more fitted to prompt the very highest efforts of imagination,—to wing the flight of the most soaring genius, in universal benevolence, in disinterested philanthropy, in the abandonment of every selfish

* Adventurer, No. 75 ; 2d note to Canto iii. of *Childe Harold*.

† Cowley's Preface to his *Poems* ; *Brydges' Life of Milton*, App. No. 4, p. 287.

gratification, and the devotion of our noblest powers to the advancement of human happiness and virtue, than in the triumph of brute force, and the aggrandisement of a few, purchased by the toil, and groans, and blood of thousands. The superiority of these high and hallowed themes has, in some cases, been already recognised; and when I reflect, that even on the humblest objects, poetry has reflected radiance, I feel warranted in concluding, that the human mind will rise to greater heights when stirred by higher principles and nobler subjects. If such be man's weakness, what will be his strength? Is not poetry, besides, an emanation and embodiment of the spirit which will finally be destructive of all exclusiveness, whether of sect or country? The poet is the denizen of the universe, and he holds communion with the wide creation. For him, all that is beautiful hath charms, no matter in what age, or in what country it has been manifested; his eye is ever open to its perception, and his heart to its appreciation. It is his privilege to dive into the recesses of the human soul, and, amid many varieties and much evil, to demonstrate its essential unity, its natural and indestructible affinity to virtue; to give form and utterance to the

"Thoughts too deep to be expressed,
But yet too strong to be repressed;"

to give aim and reality to those undefined and shapeless aspirations of which the mind is scarcely conscious to itself,—to trace the secret and mysterious analogies between things material and things spiritual,—to draw forth "the soul of good in all things evil,"—to waken a higher consciousness and a wider sympathy in even the grovelling and the selfish,—to shew forth the spirit of harmony and love which breathes throughout and vivifies the whole creation, and, by new and strong affinities, to link together universal being. Such is the poet's office; to this his endowments call him. And when the poet seeks to flatter the prejudices and the passions of a party, and scatter dissension through the world, then doth he desecrate the noblest and the rarest powers with which humanity is gifted, and forfeit, for the transient and interested plaudits of the few, the highest rewards which can attend successful genius,—the consciousness of benevolent intent, and the ever-increasing gratitude and reverence of all generations whom his labours have tended to unite and bless. The disinterested labours of patriots for their country's good, have often been the theme of the poet's song; but these labours will not be less animating and inspiring when their motive is purer and more exalted; when their aim is more extensive and long-sighted. Whenever then really praiseworthy actions are celebrated under the name of patriotism, far be it from us to withhold our tribute of admiration. But if, as is most commonly the case, unwarranted infringements on the rights of other

nations for the exaltation of one's own, have been palliated, nay extolled and consecrated, I think the views which I now advocate will be of the greatest service in dissolving the magic spell, and dissipating the halo of glory which mighty minds have thrown round injustice and oppression.

ARTICLE XII.

SHORT COMMUNICATIONS.

Excitement of Philoprogenitiveness in a Cat. Communicated by Mr H. C. WATSON, F. L. S.—In the tenth volume of this Journal, page 283, a case is reported, indicating a peculiar excitement of the feeling of Philoprogenitiveness in a cat. I have since had the opportunity of observing a second instance, in some respects analogous to the former one, in the same animal; and they seem mutually to throw some degree of light one on the other. The two cats had each two other broods of kittens in the summer of 1836; but their young ones being immediately destroyed, no opportunity of further observation occurred. In the spring of 1837, one cat gave birth to her first brood eight days before the kittens of the second cat were born; this second cat being the one mentioned in the former report, as producing her kittens later than the other. One of the three kittens of the first cat was kept alive, the rest being destroyed. When three or four days old, I carried it into a room, where the second cat was lying before the fire, and placed it beside her. She immediately rose up, growled at the little stranger, and expressed her dislike of it by the short coughing sound which in this race of animals is commonly denominated "spitting at." In a very short time she left the room, her customary abode by day, and did not return to it till the following morning. Three days afterwards the mother of the kitten brought it into the same room herself, about noon, and placed it before the fire, where the other cat was also lying. The latter immediately growled at the kitten, left the hearth-rug, and mounted a chair, where she sat looking down most sourly towards the mother and kitten; shortly afterwards she left the room. In the evening she returned, and at first looked at the kitten from a short distance, apparently with little good will towards it; but afterwards slowly approached it, mewed loudly, and lay down beside it, gradually pushing her head in between the mother and kitten, so as almost to monopolise it from its mother, notwithstanding that the latter seemed very ill-disposed to relish the intrusion, and several times struck the in-

vigour.”—*Winter Evenings*, No. 1. In another place, the same author remarks: “Very hot weather is particularly unfavourable to reading. The months of July, August, and September are by no means the seasons in which the fruits of the mind arrive at maturity. A rigid philosopher will perhaps maintain, that the mental faculties are not to be affected by the vicissitudes of cold and heat; but who will listen to philosophy, who is already convinced by actual experience?”—*Essays*, No. 82.—R. C.

Importance of the Study of the Mental Organs.—To the knowledge of “the concordances between the mind and the body,” says Lord Bacon, “that part of the inquiry is most necessary which considereth of the seats and domiciles which the several faculties of the mind do take and occupate in the organs of the body; which knowledge hath been attempted, and is controverted, and deserveth to be much better inquired.”—*Of the Proficiency and Advancement of Learning*, edit. 1825, p. 187.

Advantage of habitually regarding Insanity as a bodily disease.—In a letter written by Sir James Mackintosh to a friend in 1808, and published in his life (vol. i. p. 442), he says, with reference to the mental derangement of Mrs Barbauld, “Mental disease is perhaps the subject on which topics of consolation are the most difficult to be managed. Yet I have been engaged since my arrival here in a very singular, and not altogether unsuccessful, correspondence with poor Hall, formerly of Cambridge, on the subject of his own insanity. With Mrs Barbauld’s firmer and calmer philosophy, I should think it easy to teach the imagination habitually to consider the evil only as a bodily disease, of which the mental disturbance is a mere symptom. That this habit deprives insanity of its mysterious horrors is obvious enough from the instance of febrile delirium, which fills us with no more horror than any other morbid appearance, because we steadily and constantly consider it as an effect. The horrible character of the disease seems much to depend on its being considered as arising from some secret and mysterious change in the mind, which, by a sort of noble superstition, is exalted above vulgar corporeal organs. Whoever firmly regards it as the result of physical causes will spare himself much of this horror, and acquire the means of being useful to the sufferer. My advice may be useless, but I should wish my sympathy known to Mrs Barbauld. It is the privilege of such excellent writers to command the sympathy of the distant and unborn. It is a delightful part of their fame; and no writer is more entitled to it than Mrs Barbauld.”

On Dreaming. To the Editor of the *Phrenological Journal* Sir,—In the last number of your Journal there appeared an account of a remarkable dream, in the process of which there seemed to have been going on simultaneously in the mind of the dreamer, as it were two distinct series of reasoning, or rather that two distinct persons were engaged in thinking in the same individual; of the thoughts and ideas of one of whom, the other had no kind of conception till they appeared to find utterance in words. The dream in question, given in your Journal, and to which I have alluded, is an extremely good instance of this remarkable phenomenon in dreaming; but it is by no means unique, nor is the phenomenon itself of rare or unfrequent occurrence. I have myself more than once had dreams of a similar nature, and many of my friends to whom I have shewn the article in question have assured me that such dreams have not been unusual with them. Your correspondent expresses a desire for a good phrenological solution of the difficulty; to which I would observe, that the phenomenon seems to be well known to Oneirologists, and has to my mind been already clearly and satisfactorily explained. I would beg to refer him to an "Essay on Dreaming," published in Tilloch's *Philosophical Magazine*,* by Andrew Carmichael, Esq. M. R. I. A., who is already well known to your pages, and to whose powerful and talented advocacy Phrenology owes so much in this city. With respect to the phenomenon in question, he speaks as follows:—"Many inquirers have been perplexed to account for the lively conversations we hold in our sleep, involving rational replies, sarcastic retorts, and alternating arguments. This, however, can be explained without any recurrence to the plurality of organs. Whatever we are capable of thinking without an effort, we are susceptible of dreaming; and during our *waking reflections* we frequently imagine what kind of reply an adversary might make to an observation we had dropped; we immediately enter into the warmth of argument by coining an answer of our own in return, and when we have said all that occurs on that side of the question, a reply naturally suggests itself on the other, all the merit of which we ascribe to our antagonist; and thus the disputation goes on as if *two different minds* were engaged in the contest,—the words, by a strange illusion, tingling in our ears, and the ardent looks and forcible gestures fitting before our eyes, till some real object, breaking on our attention, recalls us to the perception of the external world, and the nature of the reverie, which, till now, we thought real. In sleep there is no such intrusion, but the dream and the reverie do not differ from each other as long as they last."

But if we may venture on a more minute analysis of the cir-

* Vol. liv. pages 252-324.

cumstances of the individual dream in question, following up the ideas advanced by the same ingenious author in his controversy with Mr Macnish, (to be found in your former pages), and to which I would refer your correspondent, as affording one of the most interesting, and at the same time simple and natural, explanations of the various phenomena of dreams; I may suppose, when the brain was entirely buried in sleep, the organs of Colour, Form, Size, &c. to wake partially from their slumber, hence arising the perception of the piece of cloth, which the mind immediately concludes to be of a certain colour. The next faculty which begins to recover from its lethargy is Combative-ness; immediately the mind figures to itself the presence of another person, who disputes the conclusion at which it has previously arrived. Then arises one of those discussions so graphically described in the extract I have quoted, which ends in the defeat of its original opinion; Humour, Secretiveness, and several other organs having been roused and brought into activity during the contest. Approbativeness is the last to shake off its torpor, and cause that feeling of *shame* which your correspondent mentions as attending his apparent defeat.

Such is the explanation of this dream, which, I think, may be deduced from Mr Carmichael's amplification of Spurzheim's theory, and which is, to my mind, perfectly satisfactory, and at the same time simple and natural. Should you think it deserving of insertion in your Journal you will oblige your obedient servant,

G. A. A.

DUBLIN, 10th July 1837.

Mr Noble on Force. SIR,—Mr Simpson maintains that we have a special *sense* for feeling mechanical resistance, and a distinct *faculty* for applying force. What is the sense of mechanical resistance but the *perception* of force? And what is the faculty of applying it but the *conception* of force? Is it not an axiom in Phrenology that the faculty which conceives perceives also? How, then, can we have a *sense* for perceiving, with a *faculty* for conceiving, any quality?

Moreover, is not Mr Simpson aware that Sir C. Bell's *discovery* regarding the spinal cord does not extend beyond the demonstration of the double origin of the spinal nerves, the separate roots having separate functions, one being specially connected with feeling, and the other with voluntary motion? Yet Mr Simpson always speaks as though the ascertained nerves of muscular feeling were special, and distinct from those of common sensation.

DANIEL NOBLE.

MANCHESTER, 7th June 1837.

Mr Meymott on Tune and Sound.—SIR, I have been very much interested by an article in the March Number of the *Phrenological Journal*, in which the author Mr Simpson contends, that the faculty hitherto called Tune should be denominated Sound, and am induced to send you a few remarks upon the subject.

Phrenology is a science of such vast importance, both from the effects it has already produced in explaining, and actually demonstrating, what was previously considered inexplicable by the most acute reasoners, and from the effects it must necessarily have hereafter, in imparting a correct knowledge of the functions of the mind, and in directing a proper cultivation of them, that now, in the infancy of the science, we cannot be too cautious in regulating those fundamental principles which are not as yet considered fully established.

There can be no question that the nomenclature of the science is of great importance, and that a faculty should receive that name which explains in the most comprehensive manner, the nature of its functions. Much has been done in this department by Spurzheim, and probably much remains yet to be done; but before the name of any faculty is changed, adequate reason should be shewn for the utility of such change—particularly when the faculty is established, and, with due deference to Mr Simpson, I cannot but consider the faculty of Tune as fully established, and its present appellation sufficiently comprehensive. If, as Mr Simpson very ably contends, the powers of discriminating sounds in general, and musical relations in particular, differ only in degree, and not in kind, let us have the most comprehensive name for designating that power or faculty, and as, the greater the development of that portion of the brain recognised as the organ of that power, the greater facility there is for discriminating and appreciating Tune (which is allowed by Mr Simpson to be a higher manifestation of the perception of Sound, though both are manifestations of the same faculty), *Tune* must be the most comprehensive appellation. The author alludes to several other faculties, which he does not consider as fully established; but as he speaks of the pneumatology of the science in conjunction with them, I presume that he does not altogether allude to their being misnamed as bearing upon the point in question, which relates especially to the nomenclature of the science. I may observe that there is a faculty not alluded to by Mr Simpson, the name of which does not sufficiently explain its functions—I mean *Philoprogenitiveness*—the name implying the love of one's own offspring; but as the faculty extends its functions to the love of children in general, a more comprehensive title would be better, for instance that of *Philopaidiveness*. In such a change as this, we

give the signification of a more comprehensive manifestation of the faculty, the one name implying its function to be confined to the love of one's own children, the other as extended to children in general; whereas in changing the name of Tune to that of Sound, we imply merely the power of discriminating one sound from another, which is the lowest manifestation of the faculty, the higher and more comprehensive manifestation being that of discriminating sound in all its varieties of collocation or melody, and combination or harmony, and which is adequately expressed in the appellation of Tune. There is a possibility of being too elementary in definitions.

Mr Simpson lays great stress on the analogy between Colour and Sound, and thinks, that if the organ of Colouring had been called the organ of Painting, it would have been an error of the same kind as calling what he conceives should be the organ of Sound, the organ of Tune. The analogy between Colour and Sound is certainly very pretty as far as it goes, but is not sufficiently complete to be a reason for substituting the name of Sound for that of Tune; and, with regard to the error in analogy (on the supposition of the term Painting being substituted for that of Colouring), there would have been more truth in it, had the organ in question been called the organ of Music instead of Tune. Other faculties besides that of Colouring are requisite to constitute a great painter, as other faculties beside that of Tune are requisite to constitute a great musician. I would say rather, that if the organ of Colouring had been called the organ of Colour, it would be a similar error to that of calling the organ of Tune the organ of Sound. A classification might be made thus:—

Colour, Colouring, Painting,	}	having the same relative signification as	}	Sound, Tune, Music.
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Again, Mr Simpson argues that the eye, through the medium of the optic nerve, conveys the quality of the colour to the brain, on the same principle that the ear, through the medium of the auditory nerve, conveys the quality of sound to the brain. Here, once more, the analogy is imperfect, inasmuch as the ear is exclusively appropriated to the conveyance of sound, but the eye conveys other properties of matter besides that of Colour to the cognizance of the perceptive faculties, such as Form, Expression, and perhaps Size. The term Appearance would be more analogous to Sound, as regards the respective channels of communication to the brain. Further, Mr Simpson contends that Tune cannot be a primitive faculty, because, to constitute a primitive faculty, it is necessary that it should be possessed in some degree by every sane individual, and that there are vast multitudes in whom there is not a trace of musi-

cal perception ; a little farther on he says, that the discriminating of sounds is a power given to the whole human race, though in various degrees : afterwards he very ably contends that all sounds are essentially musical sounds. Then, surely, if a person is able to discriminate sounds, and if all sounds are musical, he is able to discriminate musical sounds, and, consequently, must in some degree have musical perception. Indeed, it remains to be proved that there is any sane individual not absolutely deaf, who could not distinguish a splendid piece of harmony, with all the instruments in exquisite tune, even if it is only one burst, the common chord, for example, from a horrid piece of discord, with all the instruments wretchedly out of tune. If he can, he must be able, in a certain degree, to discriminate musical sounds, and have musical perception ; and if he cannot, I will give up the point, and look on him as one who, as Shakspeare says—

“ Is fit for treasons, stratagema, and spoils,
The motions of his spirit dull as night,
And his affections dark as Erebus :
Let no such man be trusted.”

In conclusion, I may remark that it is with some diffidence that I have ventured to combat the arguments of so able an advocate as Mr Simpson, but I am strongly inclined to think, from what I have advanced, that he has not sufficiently made out a case for altering the name. The term Sound certainly does not appear to me to convey the idea of a faculty so well as that of Tune. We might as well call it the organ of Noise. If I may use the expression, there is too much of anatomy, and too little physiology, in it, which is also the case with Number, which ought to be called the organ of Calculation. The ear is more essentially the organ of Sound, and that part of the brain appropriated to Tune, the organ of discriminating the different varieties of sound, the moulding and adapting the capabilities of which constitutes music.

Although the science of Phrenology bears considerable analogy to that of Anatomy, the one being the means by which we obtain a correct knowledge of the functions of the mind, and the other of the bodily functions ; yet as the elementary constituents of the mind are not tangible and material like those of the body, we ought, in designating them, to be more physiological than anatomical, and endeavour to convey as correctly as possible an idea of their several functions.—I remain, &c.

HENRY MEYMOTT.

LUDLOW,
28th March 1837.

NOTE BY THE EDITOR.—We insert the above letter with great pleasure, and must apologize for having accidentally omitted to notice it in our last num.

Case of Hydrocephalus. By Alex. Hood, Esq., Surgeon.
 —Robert Laughland was seized, when he was about four or five months old, with hydrocephalic symptoms, which gradually assumed a chronic character. The symptoms continued till he attained the third or fourth year of his age, when the disease became stationary, and the ossification of the bones of the cranium was completed by their union at the sutures. When his health was delicate his head required to be supported, but when it was in a more vigorous condition, the strength of the muscles was sufficient to keep the head in an erect position. He attained to manhood, but his muscular system in general was so feeble, that his legs could never sustain the weight of his body without the assistance of a friend to support and keep him steady. He was taught to read, repeat psalms and hymns, and he could take some share in conversation, though his mind participated much in the weakness of his body. The beard was thin, and the organs of reproduction were moderately developed. The head measured 26 inches round, 19 inches from the root of the nose to the hollow of the neck, and 17 inches from the centre of the external meatus of the one ear to the same point in the other. He contracted a catarrhal affection in the beginning of winter, which was in some degree aggravated about the time the influenza became epidemic in this place, and, without danger being apprehended, he died rather suddenly on the 9th of February, and in the 25th year of his age.

Dissection.—On dividing and turning back the scalp, the blood-vessels were scarcely observable, and the dura mater adhered with less firmness than usual to the bones of the cranium.

ber. We concur with Mr Meymott in deprecating any rash change of name, even where the one in use is more clearly objectionable than that of Tune. Mr Simpson's views are able and ingenious, but more extended inquiry must be gone into, and more conclusive evidence obtained, before we can regard his analysis of the faculty as demonstrated. There are many of the mental powers, the primitive function or quality of which is still unknown; and as the philosophy of Phrenology cannot be considered as complete till the functions of the whole of them are ascertained, we are always glad to meet with a well-conducted analysis of the phenomena included under each. But in all such inquiries we desiderate a constant reference to facts in nature as the only really phrenological and conclusive evidence. Wherever a doubt arises as to the accuracy of received opinions, or a new view occurs to any one, let him first of all refer extensively to nature, and verify its accuracy by a carefully observed and well digested body of facts, before claiming for it a general reception, or attempting to demolish what already exists. Speculation, however ably and ingeniously conducted, is but a fallible guide, except when advancing side by side with facts; and we confess that a few direct proofs in support of Mr Simpson's views, would weigh with us much more than all the arguments and analogies which he has as yet adduced. He has made out an excellent case for inquiry, but nothing more; and we object to any change of name till positive and demonstrative evidence shall warrant it.

There was no effusion of water on the surface of the brain; the only appearance worthy of notice was the unusual breadth of some of the convolutions, which might vary in some places from half-an-inch to three-quarters, or even an inch. The lateral ventricles were sound in their organic texture, communicated freely with each other, and with the third and fourth ventricles, which were also somewhat dilated, contained 53 ounces of limpid water. The gradual accumulation of water in the lateral ventricles would seem to have unfolded some of the convolutions much more than others. A small scrofulous tumour, the size of a large pea, was discovered adhering to the surface of the dura mater, in the course, and near the middle, if I rightly recollect, of the right lateral sinus. There was no disorganization discovered in any part of the brain, and the cerebellum, though rather small and soft, appeared to be in a healthy condition. The brain and cerebellum weighed 54 ounces.

KILMARNOCK, 14th March 1837.

Sketch of the Character of William Godly.—WILLIAM GODLY of Barnard Castle, flax-dresser, died in January 1837, aged fifty-eight years. He was entirely uneducated until the age of twenty-one years, when he taught himself to read and write. In early life he evinced great integrity and benevolence of disposition, with a strong desire of emulation. For the last twenty-seven years he was a member of the Society of Wesleyan Methodists, and for the last thirteen years a local preacher of that body. His religious feelings were ever identified with his benevolence, and his attention to the moral (and so far as he had means), to the temporal wants of the poor, formed a striking and amiable trait of his character.

He did not entertain any high notions of respect for greatness or power, and seemed to value no man except on account of his moral or intellectual excellencies. He was a great promoter of every institution having for its object the education and moral training of the rising generation. He was very fond of children—took an active part in Sunday Schools, and was one of several who formed, and took particular delight in executing, a plan of giving a familiar discourse (in which he was eminently successful) on some moral or religious subject, to the scholars. He long expressed a desire for the formation of an Infant School at Barnard Castle, and experienced great delight when, through the kindness and liberality of H. T. M. Witham, Esq. of Larington, such an establishment was effected.

On the formation of the Mechanics' Institution at Barnard Castle, in 1832, he joined it, and continued up to his death one of its most zealous and steady friends. He possessed great

power of language, and his speeches exhibited great ingenuity and strength of mind. He illustrated his subjects principally by *metaphor*, and his language was often adorned with the finest bursts of natural eloquence. He was fond of reading "Blair's Grave," "Young's Night Thoughts," and poems of a similar description. He loved applause, and was inclined to be vain of his acquirements and performances.

In argument he was exceedingly subtle, and, when beaten, would seldom *at the time* acknowledge it in the presence of his opponent. He was very persevering in every thing in which he engaged, and notwithstanding his declining health during the last three years of his life, it was with great difficulty he could be prevailed upon to abandon his plan of travelling into the country every Sabbath to preach—alleging a conviction that it was his duty. His means were limited, but he had habits of frugality which enabled him to be *exceedingly liberal upon benevolent occasions*, and to amass a sum of about L.140, to which he added by borrowing a further sum, and laid it out on the purchase of a property. He often lamented his inability to redeem this property, and regarded it as a bad speculation.

The accompanying cast was taken by an inexperienced person. The right side of the back part was not moulded off the head, but merely made up in the casting, and is left in an unfinished state. As we doubt that we may spoil the whole by attempting any thing further, we send it as it is, trusting that as the whole front and rather more than the half of the back is from the *real head* and *very correct*, a phrenologist may be enabled to make an estimate of the character, as well as from the finest finished bust. The subject was a man of the Nervous Sanguineous Temperament—uneducated until twenty-one years of age—then self-taught—died at the age of fifty-eight—was twenty-seven years a member of the Wesleyan Methodists' Society, and thirteen years a local preacher of that body. The cast was taken after death occasioned by typhus fever.

Development of Godly.—The head is large—very large and high in the coronal surface, and large in the anterior lobes. The occipital region seems very large in the region of Adhesiveness, Philoprogenitiveness, Love of Approbation, and Self-Esteem; but for reasons above stated, it is not entirely to be relied upon. The most striking organs are Benevolence, which is extraordinarily large, and Veneration. Firmness is large, and seems to suit the character. The knowing and reflecting powers are considerably above average, and are quite adequate, with the Benevolence and Veneration to account for the course he seems to have pursued.—EDITOR.

ARTICLE XIII.

SHORT NOTICES OF BOOKS.

Essay on the Disorders incident to Literary Men; and on the best means of preserving their Health. By W. NEWNHAM, Esq. London: Hatchard and Son, 1836. 8vo. pp. 36.

THIS essay was appropriately read before the Royal Society of Literature, the members of which may follow with great advantage the excellent advices which Mr Newnham gives them. In an essay on such a subject, little novelty, of course, was to be expected; but the author has been successful in compressing within a small bulk many principles with which literary men ought to be familiar, and by which their daily conduct ought to be regulated. The leading doctrine of the essay is, that as every part of the body requires for its power of healthy action a due supply of nervous stimulus from the brain, the general health must suffer from excessive intellectual exertion, which consumes the nervous energy to an undue extent, and leaves little to be distributed over the body at large. Too *intense* cerebral action is therefore injurious, and equally so is action too incessant. "Every organ of the body," says Mr Newnham, (meaning, we presume, every *voluntary* organ) "must have its period of repose, longer or shorter, according to circumstances: none can go on well unless it obtain its allotted portion; and the brain is one of those organs which requires for its restoration a long period of quiet. The literary man, for the most part, does not consider there is *any necessity* for attention to his brain, till it ceases, perhaps all at once, to yield him its customary obedience. He is for ever engaged in a constant struggle against sleep, and mournfully deploras the interruption occasioned to his studies by this 'tired nature's sweet restorer,' against whose influence therefore he wages perpetual war. The effect of this struggle is *always* unfortunate; if successful, by the aid of powerful volition, or of some medicinal agent, the brain carries on its actions at the expense of its vital power; and if the contrary, there occurs heavy, congestive, unnatural sleep, and a state of hebetude or of morbid irritability is the result; the organ is now overgoaded, and the individual borders upon that state of disorder which we shall presently describe. If this were only an *occasional* over-excitement, it would be followed by a state of temporary collapse, and the equilibrium would be restored; but when it is constantly happening, a demand is made upon the constitution, which impairs its vital power, and which is felt upon the brain itself, or upon one of the important organs depending upon it for support, according as the one or the other may be the feeble organ, or the most

predisposed to disease." To the effects of undue exertion of the brain, add those of anxiety and unhappiness from poverty and disappointed ambition, so common among literary men, and the seeds of complicated diseases will become apparent.

Mr Newnham strongly recommends that the earliest indications of morbid action of the brain should be attended to ; and to the question how the commencement of disorder may be recognized, he answers, " as soon as the individual becomes *conscious* that *the brain is at work*, so soon has he passed the boundary of health, and entered the confines of malady ; every instant the organ is becoming more and more unfit for intellectual exertion, morbid physical action has commenced ; and if allowed to proceed uncontrolled, none can calculate where it may be arrested."

The author concludes by offering a series of admonitions, by following which literary men may secure the largest amount of intellectual exertion with the least possible injury to the physical and mental powers. *First*, says he, seek after contentment and cheerfulness ; labour is then a pleasure, and has comparatively little exhausting effect. *Secondly*, " introduce *order* into all your pursuits : without this, intellectual labour will be desultory and unavailing, and will soon occasion the feeling of discontent which forms an unconquerable bar to successful study. Let time be methodically divided, so that each section of the day shall bring with it its peculiar and allotted arrangement." The advantages of this will be, not only those mentioned by Mr Newnham, but also increased aptitude and desire for each occupation in its turn, according to the law of periodicity of action of the brain and nervous system which is familiarly exemplified in the return of appetite for food at a certain hour. *Thirdly*, Avoid great excitement of the passions. *Fourthly*, Let a frequent intermission and change of employment be secured, this is wonderfully refreshing to the brain. *Fifthly*, " Cultivate friendly and relative society. It is of the very first importance to avoid that isolation of feeling, that concentration of thought and action, which so frequently attend upon the literary devotee, from the nature of his pursuits, and the little sympathy that others shew towards him : and in order to accomplish this, let the connecting links with society be kept clear and distinct ; let the social affections be developed, and these will tend, more than any other observance, to preserve him from evil : in fact, the exercise of the *affective* will relieve the burden of the *intellectual faculties*." *Sixthly*, Let sufficient bodily exercise be regularly taken, not only as extremely conducive to health, but because the brain is thereby relieved from the tension of uniform and exclusive pursuit. " No time," says Mr Newnham, and all experience bears out the statement, " no time will be ultimately lost from this suspension of labour, since

by it the health will be preserved, the tone of the cerebral fibre will be sustained, and the brain will be able to accomplish more, far more, in a given time, than it would have been capable of doing in a much longer period than that which would be constituted by the superaddition of time devoted to this important precaution." *Seventhly*, Let as much sleep be regularly indulged in as is found by experience sufficient to restore exhaustion, but not to produce congestion in the brain. "The individual should awaken light, comfortable, refreshed, with the brain enabled at once to resume its labours with activity and fruitfulness." The author recommends a horse-hair mattress and pillow, and the absence of a night-cap. Literary men ought not to retire to bed until the excitement of composition or study has subsided. *Eighthly*, Purity of air is essential to the proper action of the brain. This action is most vigorous when the atmospheric pressure is high. The temperature ought to be such as to render the student comfortable. *Ninthly*, Let him be so clothed as to be comfortably warm. Attention to the capillary circulation of the skin is also necessary; and let all pressure from cravats, garters, and drawer-strings be removed. *Tenthly*, Care must be taken of the digestive organs, which must be aided by gentle medicine if necessary. Meals ought to be leisurely taken; mastication well performed, and after eating, a period of quiescence should ensue so as to permit the nervous influence to be concentrated about the stomach. Finally, the author gives some advice respecting diet, and discusses the effects of tea and coffee. For his observations on these subjects we must refer to his work.

It cannot be too loudly or too earnestly proclaimed, that he who expects his intellect to be strong and active without conforming to the physiological prerequisites of cerebral vigour, is equally unreasonable with him who should hope to gather a plentiful harvest from a field which he had ill manured, ill ploughed, shaded from the rays of the sun, screened from the fresh breezes of heaven, and scourged by a succession of crops of the same grain.

There is only one point of importance on which we differ from Mr Newnham. Exercise of the brain, says he, does not increase its power, as exercise of the muscles increases muscular strength. Facts against this doctrine, he maintains, are apparent only; "the brain really loses power, though by its *increasing aptitude for certain employments* it *appears to gain power*; only because less exertion is required to accomplish the same object; and, therefore," says he, "there is less *apparent show of power*." Now, in the first place, experience demonstrates that exertion made in order to perform any particular act, produces increased aptitude not only for that special performance, but for the performance of every other act within the

sphere of the faculty. And, secondly, if by saying that after practice less *exertion* is required to accomplish an object, Mr Newnham means that less *power* is required, we dissent altogether from his proposition. He might as well argue that because a man is able to lift a certain weight with less exertion after practising for several weeks than before, the muscular power has suffered diminution, on the ground that part of the work is accomplished by an "increased aptitude for the employment." Mr Newnham's argument derives no support from the circumstance adduced in its favour, that if employed "beyond a certain point, nervous fibre will lose its power;" he overlooks the equally certain fact that in such circumstances there is a loss also of muscular power. Exercise either brain or muscle within certain limits, and strength is acquired; push the exertion too far, and debility is in both cases the result.

II. *Some Account of Phrenology, its Nature, Principles, and Uses.* By W. C. ENGLEDDUE, M. D. Chichester, 1837. 8vo. pp. 22.

DR ENGLEDDUE is one of the most active and intelligent advocates of Phrenology in the south of England, and the present work is an abstract of lectures which he delivered last winter before the members of the Chichester Literary and Philosophical Society. He first expounds the difference between a metaphysician and phrenologist, the former neglecting and the latter scrupulously regarding the influence of organization;—and afterwards proceeds to prove, by the usual arguments and illustrations, that the brain is the organ of the mind—that it consists of a congeries of parts having different functions—that size, *cæteris paribus*, is a measure of power—and that the external form of the skull indicates the form of the brain. That the brain is the organ of the mind, he remarks, is a truth which "was certainly not first promulgated by phrenologists; because we know that several physiologists, even in remote ages, were fully convinced of the fact; but the full investigation of the truth, the diffusion of the practical results which must follow its application, and the exposure of its neglect in the systems of education, with all the beneficial effects flowing therefrom, must be placed to the credit of phrenological writers alone. It will perhaps be a considerable time before the principles deduced from this fact will receive universal consent; but Lord Bacon long ago said, 'the sinews of wisdom are slowness of belief and distrust,' so that the very course followed by some appears to be natural, and of itself leads us to expect the ultimate reception of this pregnant truth."

Dr Engleddue's statement, "that in a perfectly healthy individual, the brain and skull correspond in shape, as much as a plaster of Paris cast corresponds in shape to the mould from which it was taken," is too unqualified. At certain parts men-

tioned in the elementary phrenological works (such as the transverse ridge of the occipital bone), the skull is considerably thicker than at others. This fact is never lost sight of by the practical phrenologist in making observations.

In commenting on Pope's line, "Just as the twig is bent, the tree 's inclined," Dr Engledue hardly does the poet justice. Taken by itself, the line certainly expresses a most erroneous doctrine; but in connection with the preceding line, "Tis education forms the *common* mind," it states essential truth. Pope is speaking of persons who have no decided mental bias; and in their case the vast modifying power of education is unquestionable.

The work concludes with some judicious remarks on the application of phrenology to education and the criminal law, and on its great importance with reference to these subjects.

The whole is written in so luminous a style, and so much is embraced within moderate limits, that Dr Engledue's object in publishing can hardly, we think, fail to be accomplished. The object, in his own words, "was not to give all that was known, but merely to excite inquiry, to stimulate to examination, to contribute as much as lay in our power to the diffusion of a science so essential to the improvement of the human race."

MISCELLANEOUS NOTICES.

BIRMINGHAM.—We observe that Mr Toulmin Smith has been lecturing here with much success. We extract the following notice of one of his lectures from the Birmingham Journal of February 18th.—

Mechanics' Institution.—On Thursday evening last, Mr Toulmin Smith continued the subject which had engaged so much attention on the preceding Thursday. The room was again crowded, and the intense interest excited by the subject evidently continues unabated. It will be perceived that the lecturer, confident that his theme requires only to be understood in order to be universally appreciated, proposes to deliver his course before a miscellaneous auditory, commencing with an introductory GRATUITOUS LECTURE, explanatory of the various bearings of the science, and of its eventual influence on the state of society at large.

After briefly recapitulating the connected train of inductive argument by which the conclusion had been arrived at, that the quality of mind of each individual is correctly indicated by the exterior form of the skull—that form being an accurate representation of the form of the brain which it encloses, Mr Smith proceeded to remark upon a declaration which had been made in the same room on a previous occasion by Mr Mainwaring, that the skull exhibits great variations in thickness, and that this is *always* the case; so that the Phrenological examination is impossible, the exterior of the skull *not* representing the form of the brain. Mr Smith shewed, very clearly, that this declaration could only arise from an ignorance either of anatomy, or of the simplest principles of Phrenology. He stated that Mr M. had avoided stating whether the skull which he had exhibited as an example, was that of a *healthy* individual, or whether it was an *aged* or *diseased* skull. It would be remembered that it had been stated, in the preceding lecture, that in either of the latter cases Phrenologists avowed the impossibility of positive predication of mental manifestations from external manifestations. Mr Smith shewed, that, in making this declaration, Mr M. was contradicting the authority of all the most eminent anatomists, who allow that the exterior *does* represent the form of the brain; that if, as Mr M. stated, this diversity in thickness was *always* present, it would create no difficulty in the way of the Phrenologist, since he

would know in what portion of the skull the different degrees of thickness prevailed. Lastly, Mr Smith wholly denied the correctness of the statement, that this diversity does prevail. He shewed that it was *not* present in the skull which he then exhibited to them, and stated that, in the very numerous healthy skulls which he had examined, it had *never* been present. Mr Smith then proceeded to state, and to combat, the various objections which have been raised against Phrenology. He shewed that there is not one of these which does not spring wholly from the ignorance of the principles of the science possessed by the objectors. He stated that, since nature is *constant* in all her laws, one single real instance of a case contradictory to Phrenology would prove the falsity of the science; but no such single instance had ever been exhibited. After some observations on the divisions of the faculties, and the mode of observation of the development of their several organs in the living head, Mr Smith proceeded to explain the situation and functions of the nine organs of what had been termed (perhaps erroneously) the *lower propensities*, viz: 4. Amativeness; 2. Philoprogenitiveness; 3. Concentrativeness; 4. Adhesiveness; 5. Combativeness; 6. Destructiveness; 7. Secretiveness; 8. Acquisitiveness; 9. Constructiveness. Mr Smith concluded with enforcing the grand truth, that God has bestowed on none of his creatures any faculty, the exercise of which, within due limits, is not healthy, virtuous, and beneficial.

LONDON MECHANICS' INSTITUTION.—*Class for the Investigation of the Truth and Utility of Phrenology.*—The object of this class embraces a wide range; for its complete attainment all facts and opinions having immediate reference to the nature of Man,—whether he is considered as a moral, intellectual, animal, or physical being,—may with propriety be submitted to the consideration of the members. The means adopted are the delivery of Original Essays and Lectures, upon the subjects of which (if time permits) a conversation takes place. It is also proposed to establish a Manuscript Magazine, for the collection of Facts, Opinions, and Reflections in accordance with the objects of the Class. The Class meets every Saturday evening. The Subscription is Sixpence per quarter. Essays and Lectures on the following subjects have been introduced during the present quarter, by the gentlemen whose names are attached:—July 1st.—Quarterly meeting of the Class, for the consideration of Secretary's Report, &c.—July 8th. Adjourned Conversation on the means by which the evils resulting from the abuse of Amativeness may be prevented, and the *legitimate* influence of feeling secured.—July 16th. On the Character and Organization of "Greensacre," by Mr R. Edwards.—July 22d. On the Institution of the Sabbath, considered phrenologically, by Mr J. F. Holderness jun.—July 29th. On the Improvement of Phrenological Busts, by Mr E. J. Hytch.—Aug. 5th. On the Anatomy and Physiology of the Human Brain and Nervous System compared with those of the lower Animals, by Mr Peede.—Aug. 12th. On the *superiority* of "Mill's" work on the mind" to all others on the subject, by Mr Stroud, an Anti-Phrenologist.—Aug. 19th. Mr Peede in conclusion. (*These Lectures will be illustrated by Dissections.*)—Aug. 26th. On the Question, "Is Man a free agent?" by Mr Bond.—The following still remain. Sept. 2d. On the Circulation of the Blood, by Mr Shouler.—Sept. 9th.—On the accordance between the external form of the skull and the cerebral development, by Mr Burbidge. On Politeness by Mr Johnston.—Sept. 16th. On Destructiveness considered with reference to its influence on Society, by Mr Johnston.—Sept. 23d. On the Metaphysics of Phrenology, by Mr E. J. Hytch.—Sept. 30th. On the Drama considered phrenologically, by an Investigator.—J. F. HOLDERNESSE JUN., Hon. Secretary to the Class.—A Collection of Casts from the heads of celebrated characters, some Anatomical Preparations, and a Library of Phrenological and Physiological Works, are possessed by the Class; affording every facility for the attainment of both a theoretical and practical acquaintance with Phrenology. The Class has 32 members; and with the exception of the music, is the largest class in the institution.

WICK.—Mr Keir has been delivering, to a highly respectable audience, a course of lectures on Phrenology, illustrated by diagrams and illuminated portraits.

THORNHILL.—We learn from the Dumfries Times that the Rev. Mr Os-

borne of Dumfries delivered a course of lectures on Anthropology at Thornhill. These lectures are stated to contain novel and interesting views on that subject, but as no report of them is given, we are unable to form an opinion on this point.

We have received a copy of the Doncaster Chronicle, containing a letter from Dr John Brown, Worksop, addressed to the late Dr Macnisch of Glasgow, calling attention to an error which the latter gentleman had fallen into respecting the musical prodigy known by the name of the Infant Lyra, whom he states, in his edition of Brigham on Mental Cultivation, to have died in consequence of over exertion of a naturally active brain. Dr Brown informs him that the young lady is alive and in good health. We doubt not that our lamented friend had what he considered good authority for believing the circumstances to be such as he states; and he would have been happy to have corrected any error into which he may have inadvertently fallen. We must remark, however, that we do not consider Dr Brown's strictures on what he considers to be the views of phrenologists regarding education in childhood to be at all called for. Phrenologists do not object to infant education; they have, on the contrary been, in this country, its earliest and most zealous advocates. But while they have exerted themselves to render that education more practical and effective, they have ever cautioned the public against its abuse. Notwithstanding the instances which Dr Brown cites, of precocious children being early occupied in mental tasks, and yet continuing to display eminent abilities in adult age, we must still retain our conviction of the hurtfulness of *overtaking* the young mind; and in this opinion we are borne out by the recorded experience of nearly the whole of the medical profession. Indeed, that much evil results from the manner in which the majority of seminaries are still conducted, is a fact which we do not expect to see contested. If Dr Brown does not approve of the exercising of the intellectual faculties to the neglect of the other mental and bodily powers, it is possible that his opinion on that point and ours are very much alike, for of this we cannot well judge, as he is by no means explicit as to the mode in which he would employ the minds of the young. In conclusion, we would call Dr Brown's attention to the fact, that the text of Dr Brigham applies to the United States of America in which infant education is pushed to a much more extreme degree, and the evils of great mental excitement much more severely felt than in this country. Dr Brown will perceive, then, that in supposing Phrenologists in this country to be hostile to early training he is mistaken; the point contested between them and other educational writers is of what nature that training ought to be.

STAR IN THE EAST, OR WISBECH AND EAST OF ENGLAND GAZETTE.—It is much to be wished that our newspaper press would employ itself more in diffusing solid and moral information in regard to matters of importance in daily life, rather than occupy itself entirely in the discussion of party politics, and in pampering the depraved taste for accounts of robberies and murders existing among the middle classes of this country. We have always experienced much pleasure in looking into the journal whose title is prefixed to this notice, not only on account of the very moral tone which pervades all its contents, but also on account of the valuable articles which it contains on various subjects connected with morals and education. We had intended to lay before our readers several extracts from one of a series of articles on education, but are prevented from doing so by the great influx of matter for our present number.

THE MURDERER GREENACK.—We learn that Dr Elliotson has had an opportunity of examining the head of this notorious criminal, and considers it to be one of the most villanous he ever saw, and in complete accordance with his character.

TO CORRESPONDENTS.—We have received communications from "A London Phrenologist," and Mr E. J. Hytch, too late, however, for this Number. C. B.'s communication is in the same predicament.

We have also several articles prepared which we have not found room to insert.

INDEX

TO THE

TENTH VOLUME.

- ABERCROMBIE**, Dr, his treatment of Phrenology, 242.
- Aberdeen**, Phrenology in, 246, 383, 509, 616.
- Academie de Medecine**, Phrenological discussion at the, 246, 480.
- Acquisitiveness**, 166. Notice of Mr Goyder's essay on its uses and abuses, 626.
- Adelon** on Phrenology, 483.
- Adhesiveness**, 2, 159, 213, 427.
- Adventurer**, quoted, 723.
- Affections**, qualitative, quantitative, special, and compound, of the mental faculties, 154.
- Affective faculties**, 157.
- Aikin** on the singing of birds, 727.
- Alcott's Moral Reformer**, notice of, 71.
- Alimentiveness**, 159 — View of the present state of knowledge respecting the organ of, 249 — Dr Broussais on, 645.
- Alison**, Dr, his treatment of Phrenology animadverted on, 240.
- Amativeness**, abuse of, 34, 143, 397 — Nature of the faculty, 159 — Whether the sole function of the cerebellum, 334, 340.
- American theological seminaries**, 88 — Phrenology in America, 247, 458, 478, 510, 512.
- Ancient philosophy**, 193, 273 — Ancient Greek busts, 434.
- Audral** on Phrenology, 104.
- Animals**, Dr Caldwell's reply to an objection to Phrenology founded on a comparison of the brains of different species of, and to the allegation that some of them are destitute of brain, 27 — Whether Phrenology derives support from their brains, 329 — Experiments by mutilating their brains, 332 — Change of the nervous system in some insects, 339 — Instinct of animals, 377 — Their veneration, 547 — How far endowed with language, 550.
- Animal magnetism**, Wonder large in the votaries of, 549 — Note on 614.
- Annals of Phrenology**, notice of, 478.
- Anthropological Society**, 243, 469.
- Antiphrenological facts**, specimen of, 267, 366, 502.
- A. P.** a deaf and dumb boy, case of, 566.
- Apparitions**, cases of, 45, 217, 358.
- Aristotle**, philosophy of, 193, 281 — His supposed cerebral development, ib. — His opinions concerning the functions of different parts of the brain, 372.
- Asylum of Pirna**, 704.
- Asylums**, notice of Mr Browne on, 687.
- Athenæum** on sympathy, 371.
- Avril**, character and cerebral development of, 393.
- Bacon's philosophy**, Mr Noble on its accordance with the aptitude of the human intellect, 190 — On the study of the mental organs, 728.
- Balfour**, John, murderer, case of, 138.
- Barber**, Dr, his lectures in Montreal and Quebec, 509, 512.
- Barclay**, an idiotic murderer, case of, 133.
- Barnard Castle**, Phrenology in, 245.
- Barlow**, Dr, quoted, 6.
- Barwell**, Mrs, on nursery government, 580.
- Bath**, Phrenology in, 245, 630 — Bath Phrenological Society, 386.
- Belfast**, Phrenology in, 116.
- Bell**, Sir Charles, on the mutilation of brains of animals, 561.
- Benevolence**, laws of action of, 1 — Modes of its action, 160 — Organ of, 547.
- Berlin**, Professors of, 699 — Their large anterior lobes, 701.
- Birmingham**, mental condition of the inhabitants of, 403 — Mr Smith's lectures in, 509, 741.
- Black**, G. T., on the examination of heads, 500.
- Blind**, notice of Wilson's biography of the, 89 — The organ of Colouring generally deficient in persons born blind, 90 — Alphabets for the blind,

- 373—Case of the activity of the organ of colouring in a blind man, 466.
- Blood, influence of its condition on the activity of the mind, 72—Its circulation in the brain, increased by mental excitement, 119.
- Body, connexion between mental emotions and certain states of the, 283—Influence of its state on intellectual acuteness, 391.
- Bonaparte, change of his head as he advanced in age, 418.
- Books, short notices of, 374, 506, 787.
- Bostock, Dr, his character of the works published against Phrenology, 163.
- Bouillaud, Mons., on Phrenology, 480.
- Brains of different species of the lower animals, ought not to be compared in testing Phrenology, 27—Objection that certain animals have no brain, *ib.*—Quality of brain influential as well as its size, 32, 341—Influence of other parts of the body on the brain, 71—Mutual influence of the brain and stomach, 75—Cases of change of its form, with change of character, 270, 417, 496—Mutilation of the brains of animals, 332—Hippocrates on the, 338—Intimate structure of the brain of minor importance, 341—At what age does it reach its full size? 341—Influence of depth of the convolutions, 330, 342—Insanity, or disease of the, 344—Case of its disease, with change of temper and derangement of the power of language, 362—Aristotle's opinions concerning the functions of its different parts, 372—Whether its different organs may be enlarged by exercise, 272, 414, 503—Case of its disease with corresponding mental affection, 440—Effects of inequality of the hemispheres, 603—Notice of Mr Solly's work on the brain, 506—Nature of the evidence by which the functions of its different parts may be established, 556—Insufficiency of mutilation for this purpose, 57—Large brain does not necessarily imply great intellect, 628—Influence of, on other organs, 728.
- Brigham, on mental exercise and health, notice of 71.
- Bristol, Mr Simpson's lectures in, 630.
- Brougham, Lord, on the sense of touch, 300.
- Broussais' Lectures on Phrenology, 118, 381, 408, 481, 542—Change of the form of his head, 417.
- Brown, Dr Thomas, quoted, 2, 8, 201.
- Browne, W. A. F., remarks on his notice of George Fox, 19—His reply thereto, 23—Pathological contribution to Phrenology, by, 45—His lectures on Phrenology, 113, 245—Review of his lectures on insanity, 667.
- Busts, ancient Greek, 434.
- Byron's head, 431.
- Caldwell, Dr, quoted, 7—on the brains of the lower animals, 27—on physical education, 170—on classical education, 173—his lectures in New Orleans, 247—on the means of curing intemperance, 264.
- Cambridge, state of Phrenology in, 606—libraries of, 707, note—philosophical society of, 708.
- Campbell, Thomas, head of, 432.
- Capen's Phrenological Library, notice of, 458.
- Carmichael, Mr A., on dreaming, quoted, 729.
- Carlisle, Mr Fyfe's lecture in, 386.
- Casts, new machine for taking, 503.
- Cat, excitement of Philoprogenitiveness in a, 725.
- Causality necessary to legislators, 149—case of its enlargement by exercise, 417.
- Cautiousness, 7, 146, 160, 493, 546.
- Cerebellum, functions of the, 334, 340, 506.
- Chalmers, Dr, quoted on clerical hostility to philosophy, 58, note, 203.
- Change of character, 10, 270, 283, 339, 362, 417, 426.
- Cheerfulness promotes digestion, 78.
- Children, brains of, 341.—See *Education*.
- Chinese, their exclusive spirit, 611.
- Clarke, Charles and Agnes, skulls and characters of, 117.
- Classical learning, its value considered, 173, 345, 502.
- Classification of the faculties, 154, 542.
- Cleanliness favourable to morality, 5.
- Clergymen, necessity of physical culture to, 86, 201.—See *Religion*.
- Coleridge's head, 432—his opinion of Phrenology, 503.
- Colour, 443—harmony of colours, 445.

- Calousing, organ of, generally small in persons, born blind, 20—case of its activity in a blind man, 468.
- Combative, 159, 213—case of disease of the organ of, with change of temper, 362.
- Combe, George, on gratitude, 12—his work on the Constitution of Man, 92, 235, 372, 374—his lectures on Moral Philosophy, 112—and Phrenology, 113, 202, 344, 510, 630, 631—his application for the Edinburgh Chair of Logic, 102, 318—his correspondence with Mr Dunn, 267—his reply to Professor Alison's remarks on Phrenology, 310—notice of his *System; Elements, and Outlines of Phrenology*, 376, 377—his reported renunciation of Phrenology, 505—notice of his *Lectures on Popular Education*, 507—on the nature of the evidence by which the functions of different parts of the brain may be determined, 556—his views on Concentrativeness, 489, note—on Germany, 698.
- Combe, Dr A., on sympathy, 13—review of his *Physiology of Digestion*, 71—on the cerebral seat of hunger and thirst, 254—on the effect of exercise on the size of the cerebral organs, 414—on the Secretiveness of thieves, 455.
- Comparative Phrenology, 27, 309, 439.
- Comparison, Mr Hancock on, 14—Mr Watson on, 168.
- Concentrativeness, 290, note—Dr Viment on, 567—M. de la Fosse on, 572—supposed by some the source of an emotion relating to the past, 671.
- Conception, 311, 323, 497.
- Concerts, family, 390.
- Confucius, head of, 390.
- Conscientiousness, 161.
- Constructiveness, 160, 214, 442, 541, 545.
- Controversies, phrenological, 150.
- Convulsions, different depths of, in different animals, and at different ages, 330, 342.
- Cowen, lectures in, 500.
- Cowper quoted on emulation, 2—on the compassion due to criminals, 217.
- Cox, Dr Abram, case of insanity reported by, 449.
- Cox, Robert, on the laws of action of Benevolence and Destructiveness, 71—case of dispositions inferred by him from two casts, 117—his objections to Dr Spurzheim's classification and nomenclature of the faculties, 154—notice of his edition of Caldwell on *Physical Education*, 170—report of the case of John Linn by, 307, 616—on the organ of Alimentiveness, 240—notice of his *Selections from the Phrenological Journal*, 382—his removal to Liverpool, 516.
- Craig, James, case of Mr N. reported by, 352, 565, 632, 710.
- Crampton, Judge, his opinion of Phrenology, 111.
- Criminals, punishment of, 6, 12, 121, 217—convicts sent to New South Wales, 112, 388—cases of, 117, 122 *et seq.* 207, 303, 422—some persons often punished as criminals, 121—Secretiveness of, 461.
- Crook, Dr, on Alimentiveness, 222.
- Cuvier's Cautionness large, 546.
- Deaf and Dumb boy, case of, 566.
- Dean, Mr A. on Will, 633 *et seq.*
- Delefosse, M., on Concentrativeness, 592.
- Delepine, incendiary, case of, 126.
- Destructiveness, laws and modes of action of, 1, 159—case of, 208—not always the cause of murder, 422.
- Derville, M., 417, 621.
- Dist of children, 423.—See *Food*.
- Diffusion of Phrenology, 346, 400.
- Digestion, notice of Dr Combe's Physiology of, 71—the process described, 72—whether promoted by sleep, 582.
- Distance, case of inability to appreciate, 494.
- Deird, W. J., his lectures in Sunderland, 116.
- Doncaster, Phrenology in, 114.
- Dorsey, J. D., on the utility of Phrenology in education, 110.
- Dreams, 164, 620, 739.
- Dresden, Phrenology in, 790.
- Drunkenness, 263, 467.
- Dublin, Archbishop of, his opinion of Phrenology, 109—dinner of the Dublin Zoological Society, 629.
- Dundee Lunatic Asylum, 247.
- Dunn, David, his antiphrenological facts, 287, 502.
- Dupuytren's Cautionness large, 546.
- Economy, philanthropic review of, 674.
- Edinburgh Society for Aiding in the General Diffusion of Science, 36.

- 500.—Phrenology in Edinburgh, 112, 362, 510, 630, 631.—Pauper Lunatic Asylum, 119.—Edinburgh Ethical Society's proceedings, 282.
- Edmondson, Richard, on Weight and Constructiveness, 462, 535.
- Education, harsh treatment of children improper, 9.—whether emulation is useful as a stimulus, 9.—ventilation of school-rooms, 83.—remarks on the practice of taking young children to church, 84.—abuse of Amativness among children, 84.—utility of Phrenology in education, 110.—review of Sir G. Mackenzie's observations on, 141.—rewards and punishments in schools, 145.—classical learning, 173, 345.—notice of Mr Simpson's Philosophy of Education, 377.—review of Dr Caldwell on Physical Education, 170.—value of classical learning considered, 173, 345, 692.—amount of mental exercise of children ought to be various, 432.—bodily exercise neglected in schools, 423.—errors in diet, 423.—music lessons, 425.—case of J. B. C. Hawkins, a precocious child, 460.—London Popular Educational Association, 499.—notice of Prentice on Infant Schools, 504.—notice of Combe's Lectures on Popular Education, 507.—treatment of precocious children, 505.—notice of Mrs Barwell's "Nursery Government," 601.—Institution in Saxony, 702.
- Edwards, Dr W. F., his opinion of Phrenology, 110.
- Ehrenberg's microscopic researches on brain and nerves, 703.
- Engelhus, Dr, his lectures, 510.—Notice of his "Some Account of Phrenology," 740.
- Epps, Dr, quoted on the application of Phrenology to religion, 391.—Notice of his Internal Evidences of Christianity, 506.
- Ellis, Sir William, on the utility of Phrenology in the treatment of the insane, 109.
- Elgin, phrenological lectures in, 384.
- Evanson, Dr E. T., his opinion of Phrenology, 110, 691.
- Exercise, whether it enlarges the cerebral organs, 372, 414, 603.
- Faculties, nomenclature and classification of the, 154, 437, 542.—Elementary nature of, not easily determined, 436.—Use and abuse of the, 606.—Few of them necessarily conflict with each other, 647.
- Falkirk, Mr B. Smith's lectures at, 661.
- Farrars, Earl, case of, 192.
- Ferrus, Mons., on the utility of Phrenology in relation to insanity, 465.
- Fibres of brain and nerves, microscopic appearances of, 707.
- Fieschi, head of, 464.
- Fife, J., his lectures on Phrenology, 115, 368.
- Firmness, 561, 548.
- Flattery excites benevolence, 5.
- Fletcher, Dr John, notice of his discourse on the Importance of the study of Physiology, 71.—his opinion of Phrenology, 711, & seq.
- Flourens's experiments on the brain, 556.
- Food, its influence on the mind, 4, 73, 82.—Ought to be adapted to age, constitution, mode of life, &c., 73.—Desire of food modified by climate and season, 261.—Diet of children, 423.
- Force, Mr Noble on, 730.
- Forfar Phrenological Society, 245, 384.
- Fowler, Messrs, on Phrenology, 510.
- Fox, George, remarks on a notice of, 19.
- Franklin, Benjamin, quoted, 6.
- French Revolution, effects of, on the progress of liberty, 710.
- Friends and relations, why more kindly treated than others, 2.
- Frethingham, Mr, his new phrenological theories, 478.
- Gall's work on the functions of the brain, notice of, 609.—His anatomical doctrines, 506.—His mode of determining the functions of different parts of the brain, 662.—Comparative merits of him and Dr Spurzheim, 624.
- Geology, theological opposition to, 64.
- Germany, Mr G. Combe on, 696.
- Glasgow, Phrenology in, 113, 384, 510.—Mr B. Smith's lectures in, 663.
- Geddy, William, character and development of, 135.
- Goyder, Mr, on Acquisitiveness, 623.
- Grainger, Mr, his lectures on the brain and spinal chord, 632.
- Gratitude, source of, 12.
- Greeks, their philosophy, 277.—An-

- cient Greek busts, 434—Their patriotism analyzed, 609.
Gustativeness, 253.
- Hall, an insane murderer, case of, 136.
- Hamburgh, house of refuge in, 609.
- Hancock, George, his reply to Mr Watson, 14—Mr Watson's answer to, 168.
- Hancock, William, Junior, on the function of the organ of Locality, 462, 618.
- Happiness conducive to the activity of Benevolence, 1.
- Hawkins, J. B. C., phrenological account of, 469.
- Head and character, cases of their simultaneous change, 270, 417, 426—Manipulation of heads, whether a philosophical mode of convincing others of the truth of Phrenology, 410—Suggestions as to the examination of, 500.
- Hercules, bust and character of, 434.
- Herschel, Sir W., change of the form of his head, 417.
- Hipper, John, case of, 125.
- Hippocrates on the brain, 337.
- Hodgson, W. B., on patriotism, 285, 602, 716—on the Secretiveness of thieves, 451—His lectures, 510, 630.
- Homœopaths have large Wonder, 549.
- Hood, Alex., case of hydrocephalus by, 734.
- Hope, 161, 450.
- Hoppe, Dr, his views of Alimentiveness, 249, 255, 263.
- Howison, an insane murderer, case of, 136.
- Human nature, supposed organ of intuitive knowledge of, 511.
- Humboldt, Baron de, notice of, 700.
- Hume's cerebral development, 429.
- Hunger sharpens the temper, 4—Cerebral organ of, 249, *et seq.*
- Hydrocephalus, case of, 734.
- Hydrophobia, supposed to be affection of the organ of Alimentiveness, 263, *note.*
- Ideality, 148, 161—J. K. on the unascertained organ behind it, 671.
- Imagination, 311, 323, 497.
- Imitation, case of involuntary, 370.
- India, philosophy of ancient, 275.
- Individuality, 163.
- Influence of state of body on the mind, 727—Of brain on other organs, 737.
- Inglis, Dr James, his case of injury of the organ of Language, 62.
- Inhabitiveness. *See* Concentrativeness.
- Insanity, treatment of, 11, 109, 187, 247, 485—Cases of, 48, 62, 119, 362, 389, 449—Insanity and crime, 121, 212—Drunkenness considered as a form of, 264—Is a disease of the brain, 344—Mr Brown's lectures on, 667—Cause of increase of, 691—Treatment of, at Pirna, 704—Advantage of regarding it as a bodily disease, 728.
- Insects, whether any of them want brains, 27—Change of the nervous system in some, 339.
- Instinct of animals, 377.
- Intemperance, 263.
- James's "Thoughts on Phrenology," notice of, 379.
- Jeffrey's forehead, 430.
- Jenkins, John, a murderer, case of, 485.
- Jews, their exclusive spirit, 610.
- Johnson, Dr James, his opinion of Phrenology, 111.
- Kelso, account of Mr S. Smith's lectures at, 652.
- Kennedy, Dr, on the organ of weight, 525.
- "Key to Phrenology," notice of, 508.
- Kirtley, Martin, case of change of head and character, reported by, 426.
- Knowledge, opposition of some religious persons to its diffusion, 57, 80.
- Knox, Dr Vicesimus, on the state of the mind in hot and cold weather, 727.
- Lacenaire, character and cerebral development of, 393.
- Language, cases of injury of the organ of, 68, 118—Recovery of knowledge of forgotten languages, 85—Cases of loss of memory of languages, 86, 357, 483—Dr Conolly on the use of modern languages to a physician, 502—How far the faculty possessed by the lower animals, 550—Case of its deficiency, 566.
- Lauder, Phrenology in, 113.
- Laws of nations improve as they become enlightened, 641.

- Leach, Dr, his collection of skulls, 632.
- Legislators require Causality, 149.
- Lewins, Dr, notice of his statement of Dr Fletcher's opinion of Phrenology, 711.—Notice of his remarks on the case of Mr N. (disease of brain), 710.
- Life, love of, 490.
- Linn, John, parricide, case of, 207, 616.
- Literary Gazette, its modesty, 196.
— men, notice of Newnham on the disorders of, 737.
- Locality, cases of, 90, 432.—Mr William Hancock jun. on its functions, 462, 618.
- Lockhart, John Gibson, phrenological opinions of, 438.
- Logic Chair of Edinburgh, Mr Combe's testimonials as a candidate for the, 102.—bearing of Phrenology upon Logic, 318.
- Loudon, Mrs, review of her Philanthropic Economy, 674.
- London, Phrenology in, 243.—Mechanics' Institution, 742.
- Love, constituent elements of, 2.
- Love of Approbation, 160.
- Lyra, the infant, 743.
- Mackenzie, Sir G. S., on gratitude, 12.—his application to Lord Glenelg about convicts sent to New South Wales, 112, 388.—review of his Observations on Education, 141.
- Mackintosh, Dr John, his opinion of Phrenology, 111.
- Macnish, Robert, his edition of Brigham on Mental Exercise and Health, 71.—on Phrenology, 85.—review of his Introduction to Phrenology, 98, 552.—his death, 447.—note, 552.—his character, 552.—notice of a letter to him from Dr J. Brown, 743.
- Manchester, Mr Combe's lectures in, 510, 631.
- Manipulation of heads, 410, 500.
- Marmion, quotations from, 672.
- Marriage, Vimont on an organ of, 663.—Gall mistaken as to the source of, 664.—Adhesiveness not the source of, 664.
- Materialism, 142.
- Maxwell, Dr John, his remarks on a notice of George Fox, 19.
- Memory, 311, 323, 497.—See *Language*.
- Mental organs, Lord Bacon on the study of, 738.
- Meymott, H., on Sound and Tune, 731.
- Millar, Alexander, murderer, account of, by Mr S. Smith, 664.
- Mind invigorated only by strengthening the organization, 71.—more vigorous in cold than hot weather, 727.
- Misery not conducive to the activity of the moral powers, 6.
- Modes of action of the faculties, 154.
- Montreal, Dr Barber's lectures in, 509.
- Montrose, Mr Browne's lectures in, 113.—Montrose Lunatic Asylum, 247.
- Morgan, Thomas, on Phrenology in Southampton, 520.
- Motives derive their force from some supposed good to be obtained, 643.
- Mounin, murderer, case of, 130.
- Music, its effects on the moral dispositions, 8.—erroneous modes of teaching it, 425.
- Negro and European skulls, Tiedemann's comparison of, 627.
- New Hollanders, their Constructiveness small, 545.
- New Zealanders, their Constructiveness well developed, 545.—account of the skull of one, 567.
- Newcastle Phrenological Society, 114, 387, 511.
- Newlands, Jn., his satirical "Dream," 164.
- New Orleans, Dr Caldwell's lectures in, 247.
- Newnham, notice of, on disorders of literary persons, 737.—his rules for preserving their health, 738.
- Noble, Daniel, on the accordance of Bacon's philosophy with the aptitude of the human intellect, 190.—on force, 710.
- Noel, Mr Robert, taught Phrenology privately in Dresden, 701.
- Nomenclature of the faculties, 154, 732.
- Notices, miscellaneous, 112, 243, 382, 509, 742.—short notices of books, 505, 737.
- Number, organ of, 411.
- Nursery government, 580.
- Odours, agreeable and disagreeable, their effect on the mind, 5.
- Ombros, M., on Alimentiveness, 249.
- Organs, cerebral, whether enlarged by exercise, 272, 414, 426, 503—

- Mr. Scott, on their position and grouping, 404.
 Oedipus on the use and abuse of the faculties, 614.
 Oxonians, mental condition of the, 405.
 Paris, Phrenology in, 118, 246, 480.
 Past; a peculiar feeling having reference to this, perhaps the function of the organ behind Ideality marked "2" 671.
 Pathological contribution to Phrenology, 45.
 Patriotism, phrenological analysis of, 285, 602, 710.
 Peel, Sir Robert, 496.
 Pentelithe, M., on Alimentiveness, 249.
 Perception, 311, 323, 407.
 Perspective, power of perceiving, 495.
 Peter's Letters to his Kinsfolk, Phrenology in, 428.
 Philanthropic Economy, review of, 674.
 Philoprogenitiveness, 182, 284, 397, 427, 702, 725.
 "Philosophy of Phrenology Simplified," 337.
 Phrenological Journal, Mr. Watson's remarks on the mode in which it is conducted, 230—vindication of, from Mr S. Smith's interpretation, 663—American Phrenological Library, 452.
 Phrenology, pathological contribution to, 45—notice of "Phrenology Simplified," 52—Mr Watson's statistics of, 54, 286, 347, 368, 406— theological hostility to, 62, 64, 201—its bearing upon logic, 218— comparative merits of Phrenology and the philosophy of Reid and Stewart, 301—progressive diffusion of, 346, 400—recent attacks on, 369—advantages of, 390—curious trial connected with, 390—application of, to religion, 391—impediments to its diffusion, 348, 400—what designation of the science most appropriate, 432—the Pope *versus* Phrenology, 600—Phrenology in Germany, 698.
 Physical Education, Dr Caldwell on, 170.
 Pinel's treatment of the insane, 187.
 Pirna, asylum of, 704.
 Plato, philosophy of, 193, 379—his probable cerebral development, 260.
 Playfair's forehead, 430.
 Pleasure excites Benevolence, 1.
 Portsmouth Phrenological Society, 388—Dr Engledue's lectures in, 510.
 Poverty unfavourable to morality, 10.
 Precocious child, phrenological account of a, 460—cause of precocity, 555.
 Pregnant women, hangings of, 260.
 Prentice on Infant schools, notice of, 504.
 Presbyterian Magazine on Phrenology, 92.
 Prichard, Dr J. C., on the inconclusiveness of the common objections to Phrenology, 152.
 Propagation, laws of, 143, 172, 504.
 Propensities, what faculties ought to be claimed as such? 153—and lower sentiments of one mind may be hostile to those of another, 630.
 Punishment of criminals, 6, 12, 421, 517.
 Pythagoras, philosophy of, 102.
 Quacks, phrenological, 30, 164.
 Quarterly Review on Phrenology, 369, 381, 428.
 Quebec, Dr Barber's lectures in, 512.
 Reading favourable to morality, 2.
 Reid's philosophy, its merits compared with those of Phrenology, 301.
 Relations and friends, why more kindly treated than those of others, 2.
 Religion, comfort and happiness favourable to Christian charity, 6—cases of religious insanity, 48, 449—remarks on the hostility of some religious persons to the diffusion of knowledge, 57, 90, 201— theological hostility to Geology, 64— ventilation of churches, 83— application of Phrenology to, 301— remarks on the practice of taking young children to church, 84—Sir George Mackenzie on religion, 146, 150—notice of Dr Eppe's Internal Evidences of Christianity, 508—violent spirit displayed by the religious world, 518—right of individual interpretation of Scripture, 515—doctrine of eternal punishment, 548.
 Religious worship of savages, 2, 4—effect of, on the insane, 698.
 Responsibility, moral, 651.
 Rätter-gut, institution of, in Saxony, 702.
 Reynolds, Dr, on the necessity of physical culture to literary men, 71.